PU01-0176
~~EP01-0176~~
~~PIN01-0176~~

FIG. 1

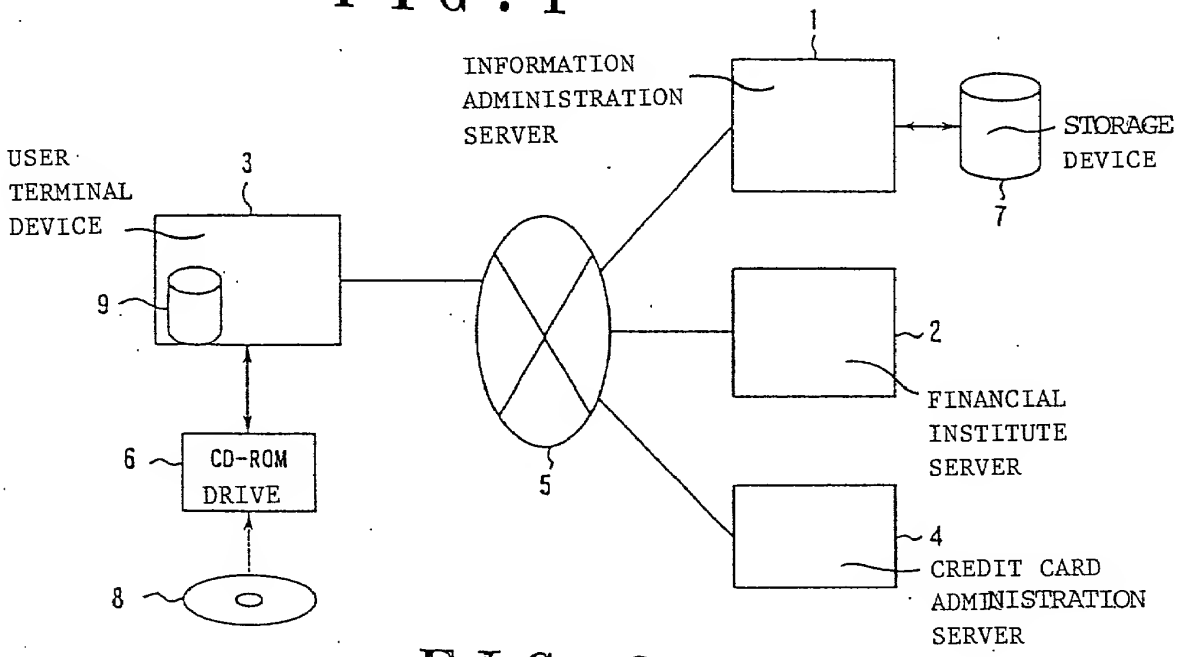


FIG. 2

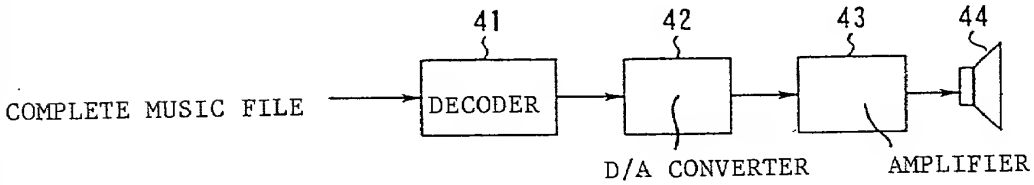


FIG. 3

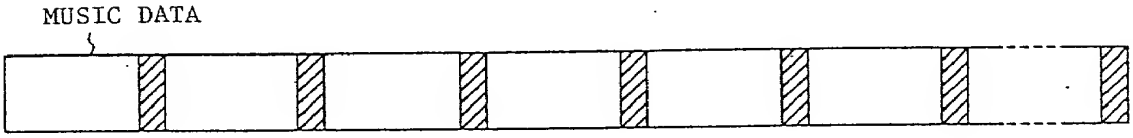


FIG. 4

HEADER PORTION	IMCOMPLETE DATA PORTION

FIG. 5

HEADER PORTION	COMPLEMENTARY DATA PORTION

FIG. 6

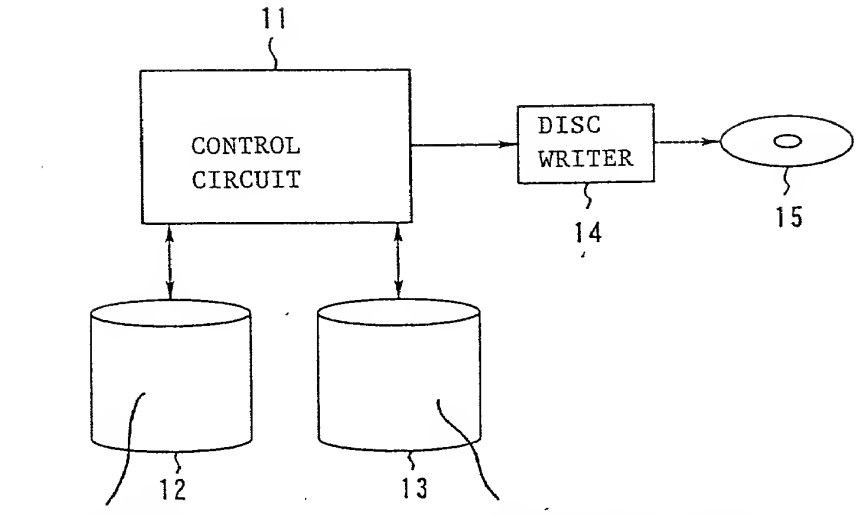

11
CONTROL CIRCUIT
DISC WRITER
14
15
12
13
MUSIC DATA FILE STORAGE DEVICE
COMPLEMENTARY MUSIC FILE STORAGE DIVICE

FIG. 7

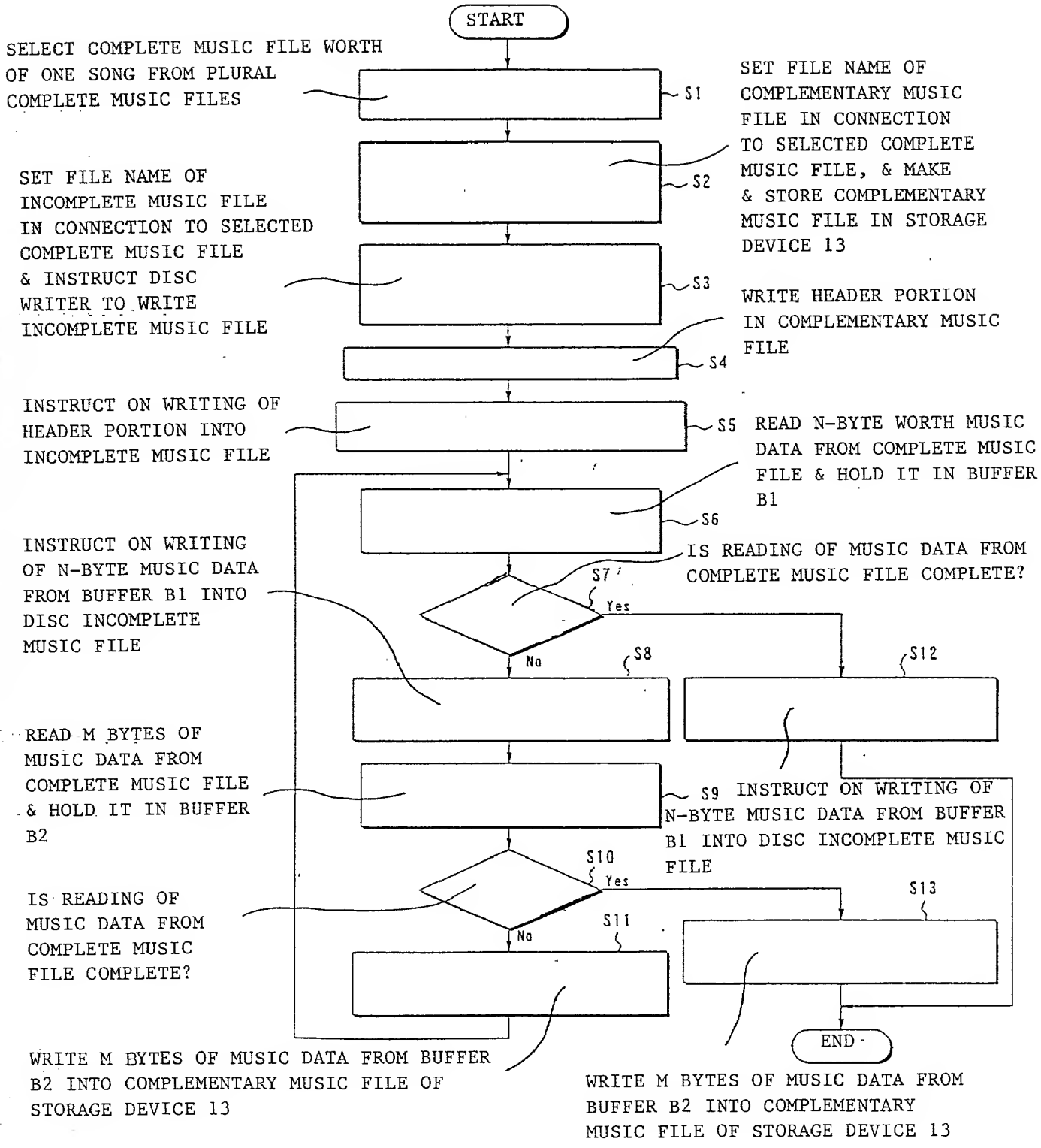
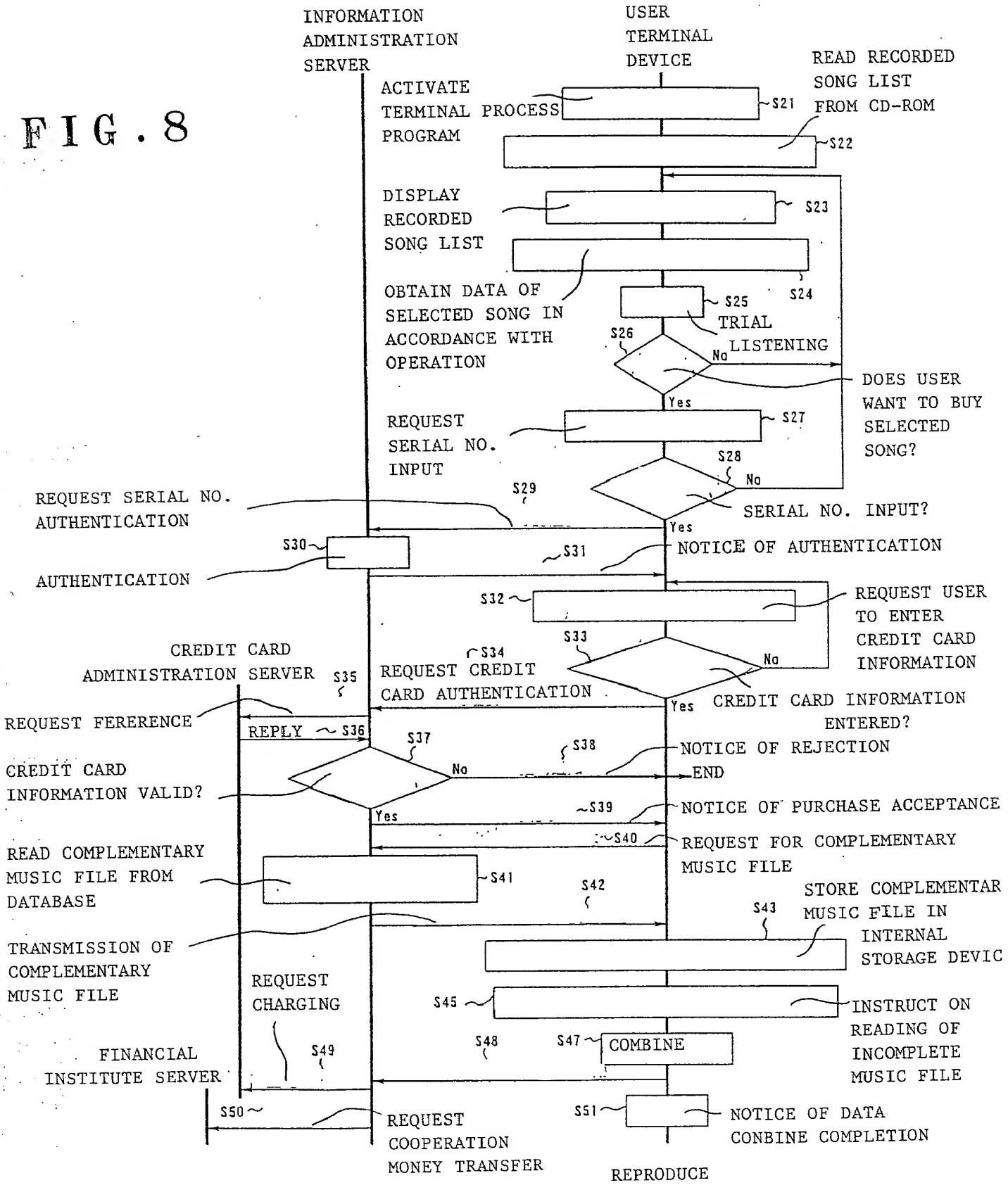

START
SELECT COMPLETE MUSIC FILE WORTH OF ONE SONG FROM PLURAL COMPLETE MUSIC FILES
S1
SET FILE NAME OF COMPLEMENTARY MUSIC FILE IN CONNECTION TO SELECTED COMPLETE MUSIC FILE, & MAKE & STORE COMPLEMENTARY MUSIC FILE IN STORAGE DEVICE 13
S2
SET FILE NAME OF INCOMPLETE MUSIC FILE IN CONNECTION TO SELECTED COMPLETE MUSIC FILE & INSTRUCT DISC WRITER TO WRITE INCOMPLETE MUSIC FILE
S3
WRITE HEADER PORTION IN COMPLEMENTARY MUSIC FILE
S4
INSTRUCT ON WRITING OF HEADER PORTION INTO INCOMPLETE MUSIC FILE
S5
READ N-BYTE WORTH MUSIC DATA FROM COMPLETE MUSIC FILE & HOLD IT IN BUFFER B1
S6
INSTRUCT ON WRITING OF N-BYTE MUSIC DATA FROM BUFFER B1 INTO DISC INCOMPLETE MUSIC FILE
IS READING OF MUSIC DATA FROM COMPLETE MUSIC FILE COMPLETE?
S7
Yes
No
S8
S12
READ M BYTES OF MUSIC DATA FROM COMPLETE MUSIC FILE & HOLD IT IN BUFFER B2
S9 INSTRUCT ON WRITING OF N-BYTE MUSIC DATA FROM BUFFER B1 INTO DISC INCOMPLETE MUSIC FILE
S10
Yes
S13
IS READING OF MUSIC DATA FROM COMPLETE MUSIC FILE COMPLETE?
No
S11
WRITE M BYTES OF MUSIC DATA FROM BUFFER B2 INTO COMPLEMENTARY MUSIC FILE OF STORAGE DEVICE 13
END
WRITE M BYTES OF MUSIC DATA FROM BUFFER B2 INTO COMPLEMENTARY MUSIC FILE OF STORAGE DEVICE 13

FIG. 8


INFORMATION ADMINISTRATION SERVER
USER TERMINAL DEVICE
ACTIVATE TERMINAL PROCESS PROGRAM
S21
READ RECORDED SONG LIST FROM CD-ROM
S22
DISPLAY RECORDED SONG LIST
S23
S24
OBTAIN DATA OF SELECTED SONG IN ACCORDANCE WITH OPERATION
S25
TRIAL LISTENING
S26
No
DOES USER WANT TO BUY SELECTED SONG?
Yes
REQUEST SERIAL NO. INPUT
S27
S28
No
SERIAL NO. INPUT?
Yes
REQUEST SERIAL NO. AUTHENTICATION
S29
S30
AUTHENTICATION
S31
NOTICE OF AUTHENTICATION
S32
REQUEST USER TO ENTER CREDIT CARD INFORMATION
S33
No
CREDIT CARD INFORMATION ENTERED?
Yes
CREDIT CARD ADMINISTRATION SERVER
S34
REQUEST CREDIT CARD AUTHENTICATION
S35
REQUEST FERERENCE
REPLY
S36
S37
CREDIT CARD INFORMATION VALID?
No
S38
NOTICE OF REJECTION
END
Yes
S39
NOTICE OF PURCHASE ACCEPTANCE
S40
REQUEST FOR COMPLEMENTARY MUSIC FILE
READ COMPLEMENTARY MUSIC FILE FROM DATABASE
S41
S42
S43
STORE COMPLEMENTAR MUSIC FILE IN INTERNAL STORAGE DEVIC
TRANSMISSION OF COMPLEMENTARY MUSIC FILE
REQUEST CHARGING
S45
INSTRUCT ON READING OF INCOMPLETE MUSIC FILE
S48
S47
COMBINE
S49
FINANCIAL INSTITUTE SERVER
S50
REQUEST COOPERATION MONEY TRANSFER
S51
NOTICE OF DATA CONBINE COMPLETION
REPRODUCE

PU01-0176
~~EP01-0176~~
~~PIN01-0176~~

FIG. 9

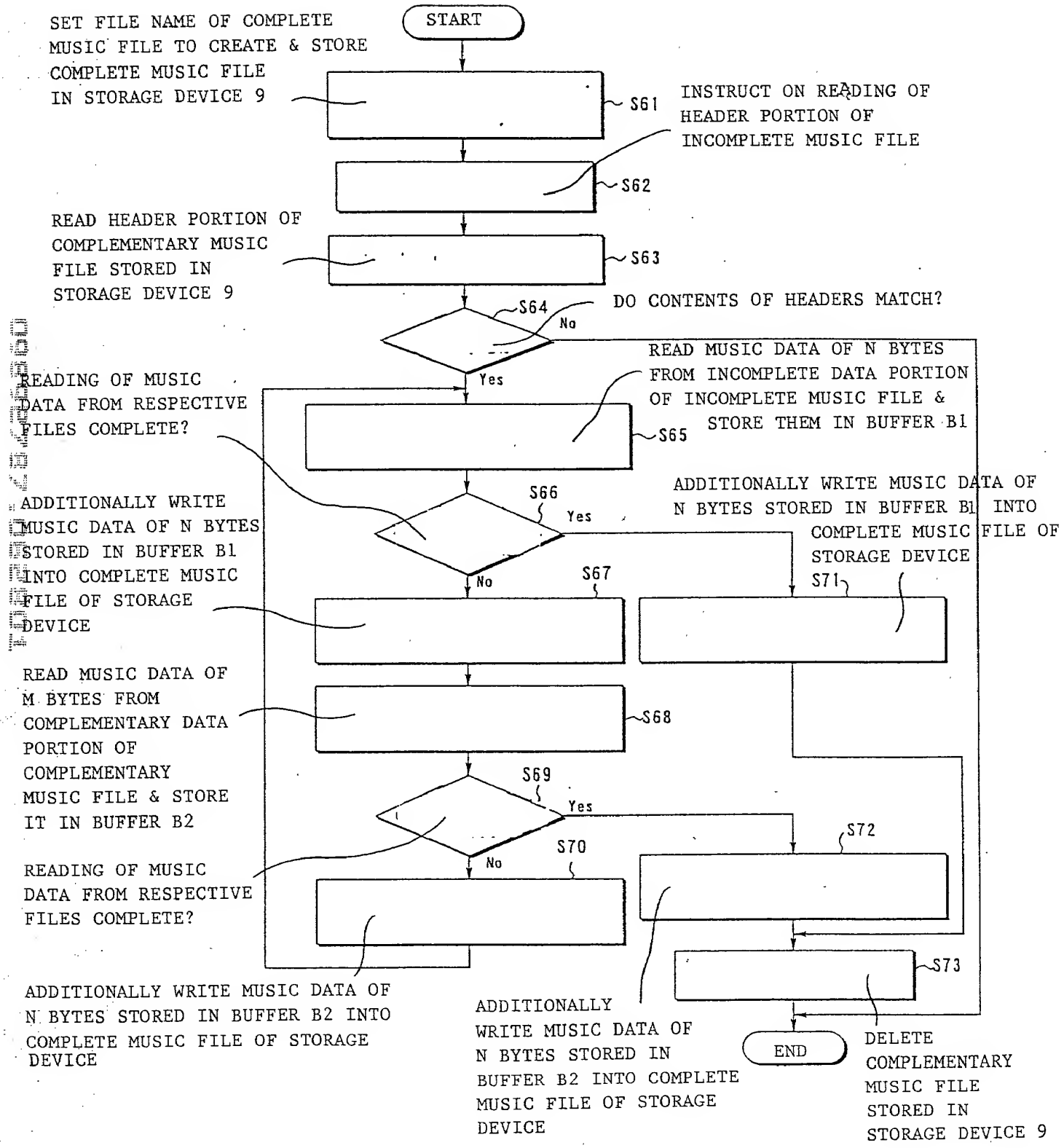
COMPLEMENTARY MUSIC FILE

DISTRIBUTION SOURCE

SERIAL NO.	CD-ROM NO.		
000001 ⋮ 005000	DISC A	Fsup1 ⋮ Fsup20	RECORD STORE A (BANK ACCOUNT NO.XXXXX)
005001 ⋮ 010000	DISC A	Fsup1 ⋮ Fsup20	RECORD STORE B (BANK ACCOUNT NO.YYYYY)
010001 ⋮ 015000	DISC B	Fsup21 ⋮ Fsup40	COMPUTER SHOP A (BANK ACCOUNT NO.ZZZZZ)
015001 ⋮ 020000	DISC B	Fsup21 ⋮ Fsup40	RECORD STORE A (BANK ACCOUNT NO.XXXXX)

PU01-0176
~~EP01-0176~~
~~PIN01-0176~~

FIG. 10



PU01-0176
~~EP01-0176~~
~~PIN01-0176~~

FIG. 11

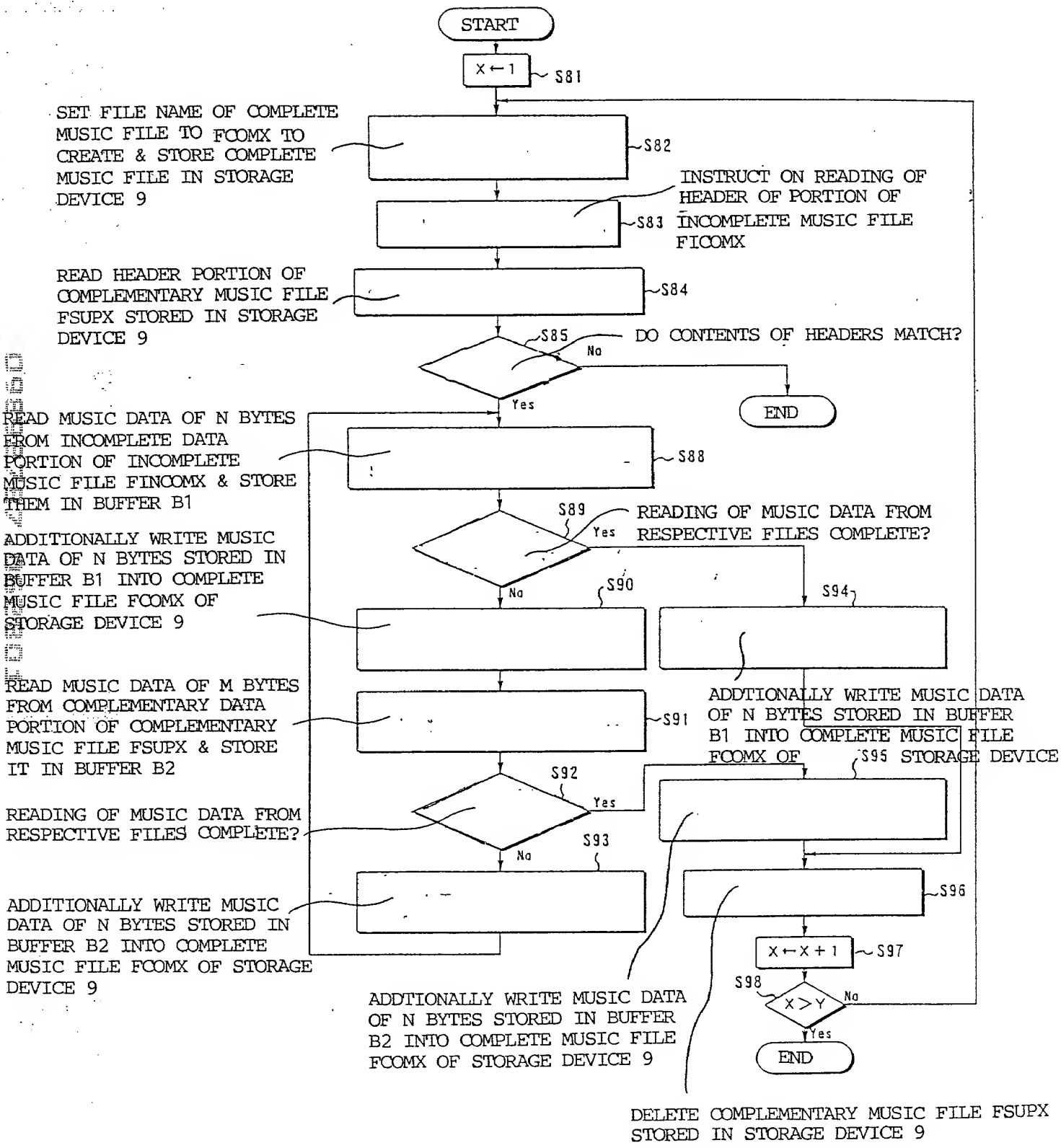


FIG. 12

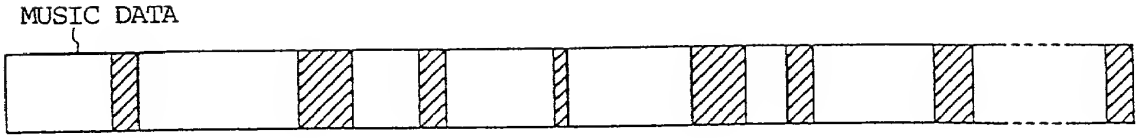


FIG. 13

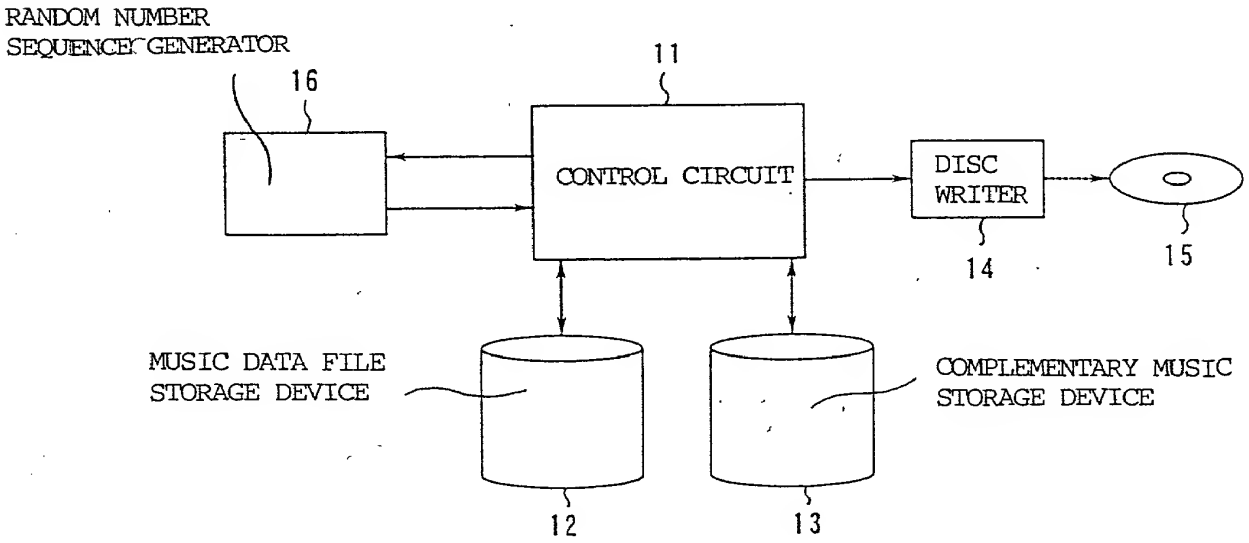


FIG. 14

RANDOM NUMBER

	M	N
0	5	100
1	6	80
2	4	90
⋮	⋮	⋮
9	11	95

FIG. 15

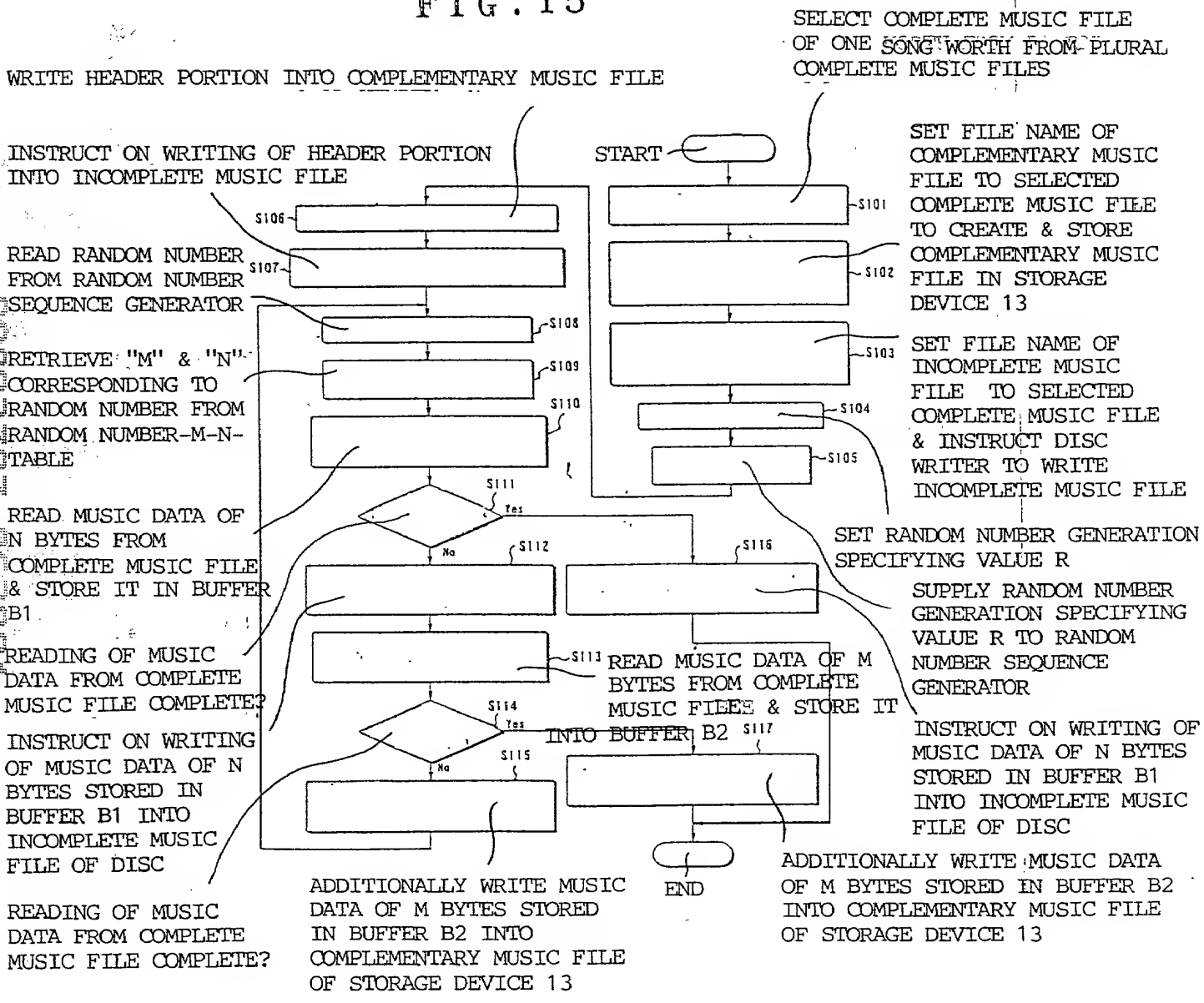

START
SELECT COMPLETE MUSIC FILE OF ONE SONG WORTH FROM PLURAL COMPLETE MUSIC FILES
S101
SET FILE NAME OF COMPLEMENTARY MUSIC FILE TO SELECTED COMPLETE MUSIC FILE TO CREATE & STORE COMPLEMENTARY MUSIC FILE IN STORAGE DEVICE 13
S102
SET FILE NAME OF INCOMPLETE MUSIC FILE TO SELECTED COMPLETE MUSIC FILE & INSTRUCT DISC WRITER TO WRITE INCOMPLETE MUSIC FILE
S103
S104
SET RANDOM NUMBER GENERATION SPECIFYING VALUE R
S105
SUPPLY RANDOM NUMBER GENERATION SPECIFYING VALUE R TO RANDOM NUMBER SEQUENCE GENERATOR
S116
INSTRUCT ON WRITING OF MUSIC DATA OF N BYTES STORED IN BUFFER B1 INTO INCOMPLETE MUSIC FILE OF DISC
S117
ADDITIONALLY WRITE MUSIC DATA OF M BYTES STORED IN BUFFER B2 INTO COMPLEMENTARY MUSIC FILE OF STORAGE DEVICE 13
END
WRITE HEADER PORTION INTO COMPLEMENTARY MUSIC FILE
S106
INSTRUCT ON WRITING OF HEADER PORTION INTO INCOMPLETE MUSIC FILE
S107
READ RANDOM NUMBER FROM RANDOM NUMBER SEQUENCE GENERATOR
S108
RETRIEVE "M" & "N" CORRESPONDING TO RANDOM NUMBER FROM RANDOM NUMBER-M-N-TABLE
S109
S110
READ MUSIC DATA OF N BYTES FROM COMPLETE MUSIC FILE & STORE IT IN BUFFER B1
S111
Yes
No
READING OF MUSIC DATA FROM COMPLETE MUSIC FILE COMPLETE?
S112
INSTRUCT ON WRITING OF MUSIC DATA OF N BYTES STORED IN BUFFER B1 INTO INCOMPLETE MUSIC FILE OF DISC
S113
READ MUSIC DATA OF M BYTES FROM COMPLETE MUSIC FILEE & STORE IT INTO BUFFER B2
S114
Yes
No
READING OF MUSIC DATA FROM COMPLETE MUSIC FILE COMPLETE?
S115
ADDITIONALLY WRITE MUSIC DATA OF M BYTES STORED IN BUFFER B2 INTO COMPLEMENTARY MUSIC FILE OF STORAGE DEVICE 13

FIG. 16

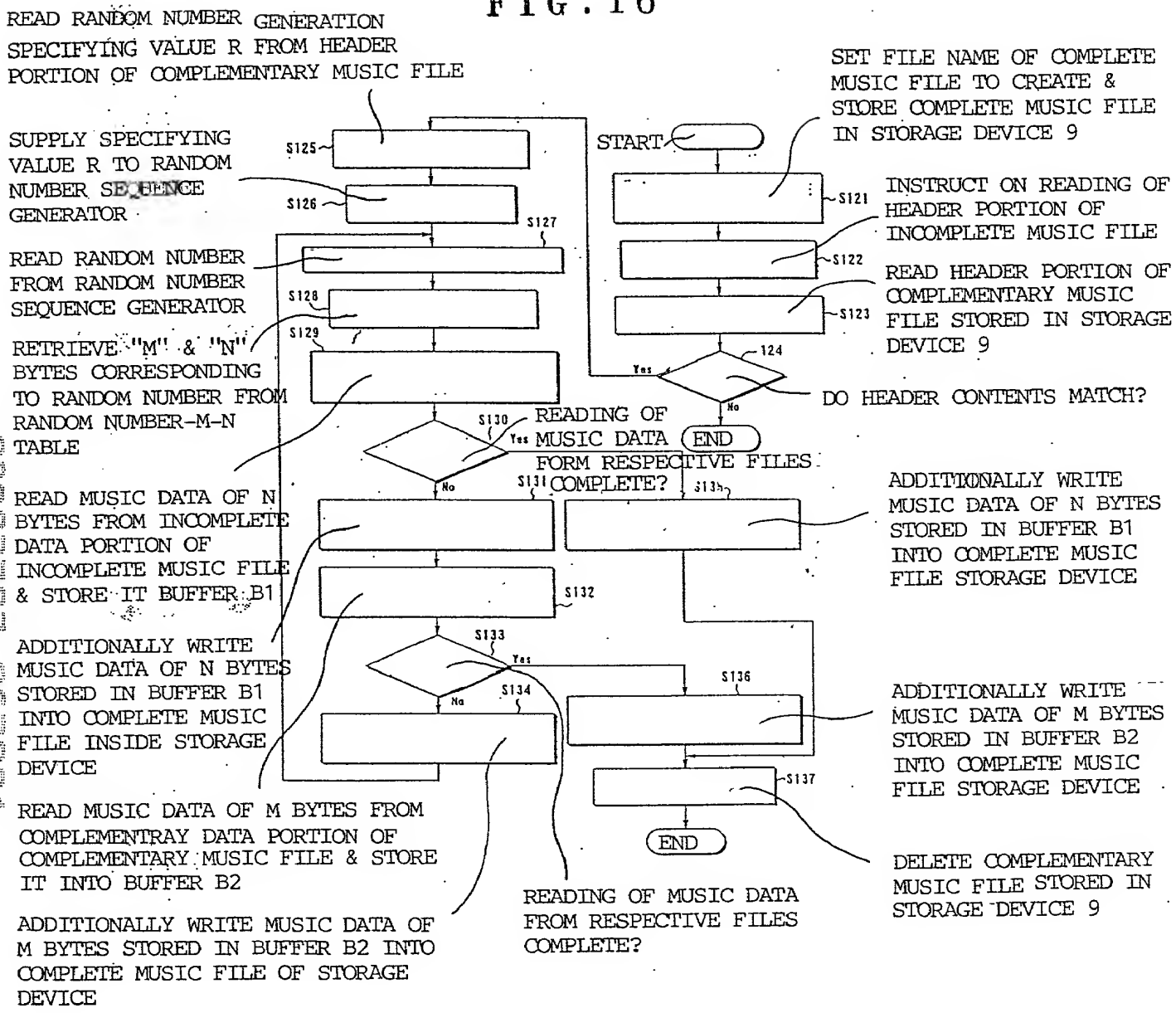

START
SET FILE NAME OF COMPLETE MUSIC FILE TO CREATE & STORE COMPLETE MUSIC FILE IN STORAGE DEVICE 9
S121
INSTRUCT ON READING OF HEADER PORTION OF INCOMPLETE MUSIC FILE
S122
READ HEADER PORTION OF COMPLEMENTARY MUSIC FILE STORED IN STORAGE DEVICE 9
S123
124
Yes
No
DO HEADER CONTENTS MATCH?
READ RANDOM NUMBER GENERATION SPECIFYING VALUE R FROM HEADER PORTION OF COMPLEMENTARY MUSIC FILE
S125
SUPPLY SPECIFYING VALUE R TO RANDOM NUMBER SEQUENCE GENERATOR
S126
S127
READ RANDOM NUMBER FROM RANDOM NUMBER SEQUENCE GENERATOR
S128
RETRIEVE "M" & "N" BYTES CORRESPONDING TO RANDOM NUMBER FROM RANDOM NUMBER-M-N TABLE
S129
S130
Yes
No
READING OF MUSIC DATA FORM RESPECTIVE FILES COMPLETE?
END
S131
READ MUSIC DATA OF N BYTES FROM INCOMPLETE DATA PORTION OF INCOMPLETE MUSIC FILE & STORE IT BUFFER B1
S132
ADDITIONALLY WRITE MUSIC DATA OF N BYTES STORED IN BUFFER B1 INTO COMPLETE MUSIC FILE INSIDE STORAGE DEVICE
S133
Yes
No
S134
READ MUSIC DATA OF M BYTES FROM COMPLEMENTRAY DATA PORTION OF COMPLEMENTARY MUSIC FILE & STORE IT INTO BUFFER B2
ADDITIONALLY WRITE MUSIC DATA OF M BYTES STORED IN BUFFER B2 INTO COMPLETE MUSIC FILE OF STORAGE DEVICE
READING OF MUSIC DATA FROM RESPECTIVE FILES COMPLETE?
S135
ADDITIONALLY WRITE MUSIC DATA OF N BYTES STORED IN BUFFER B1 INTO COMPLETE MUSIC FILE STORAGE DEVICE
S136
ADDITIONALLY WRITE MUSIC DATA OF M BYTES STORED IN BUFFER B2 INTO COMPLETE MUSIC FILE STORAGE DEVICE
S137
DELETE COMPLEMENTARY MUSIC FILE STORED IN STORAGE DEVICE 9
END

FIG. 17

SPECIFYING VALUE R

SONG		COMPLEMENTARY MUSIC FILE NAME
SONG NO.A1	0	Fsup1
SONG NO.A2	3	Fsup0
SONG NO.A3	2	Fsup2
⋮	⋮	⋮

FIG. 18

SPECIFYING VALUE R

SONG		COMPLEMENTARY MUSIC FILE NAME
SONG NO. A 1	0	Fsup1-0
	1	Fsup1-1
	2	Fsup1-2
	⋮	⋮
	9	Fsup1-9
SONG NO. A 2	0	Fsup2-0
	1	Fsup2-1
	2	Fsup2-2
	⋮	⋮
	9	Fsup2-9
SONG NO. A 3	0	Fsup3-0
	1	Fsup3-1

FIG. 19

FORM OF RANDOM NUMBER

	SPECIFYING VALUE R
T1	3
T2	9
T3	0
T4	5
T5	1
⋮	⋮
Ti	6

FIG. 20

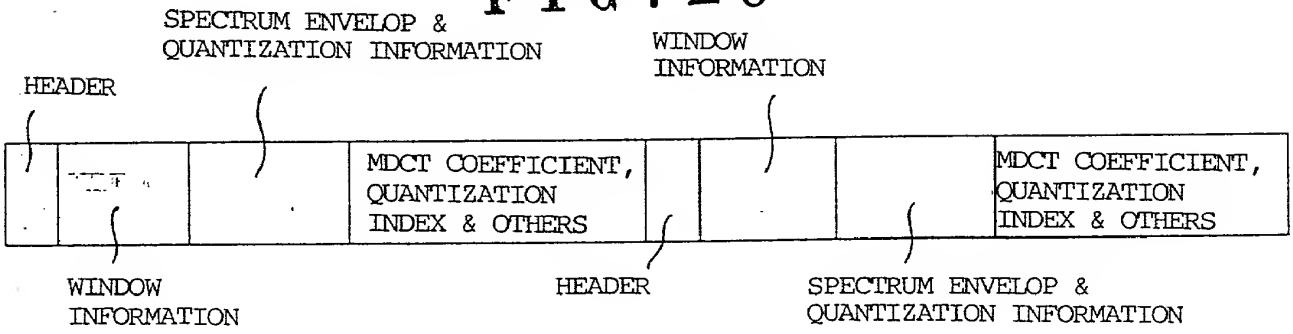


FIG. 21

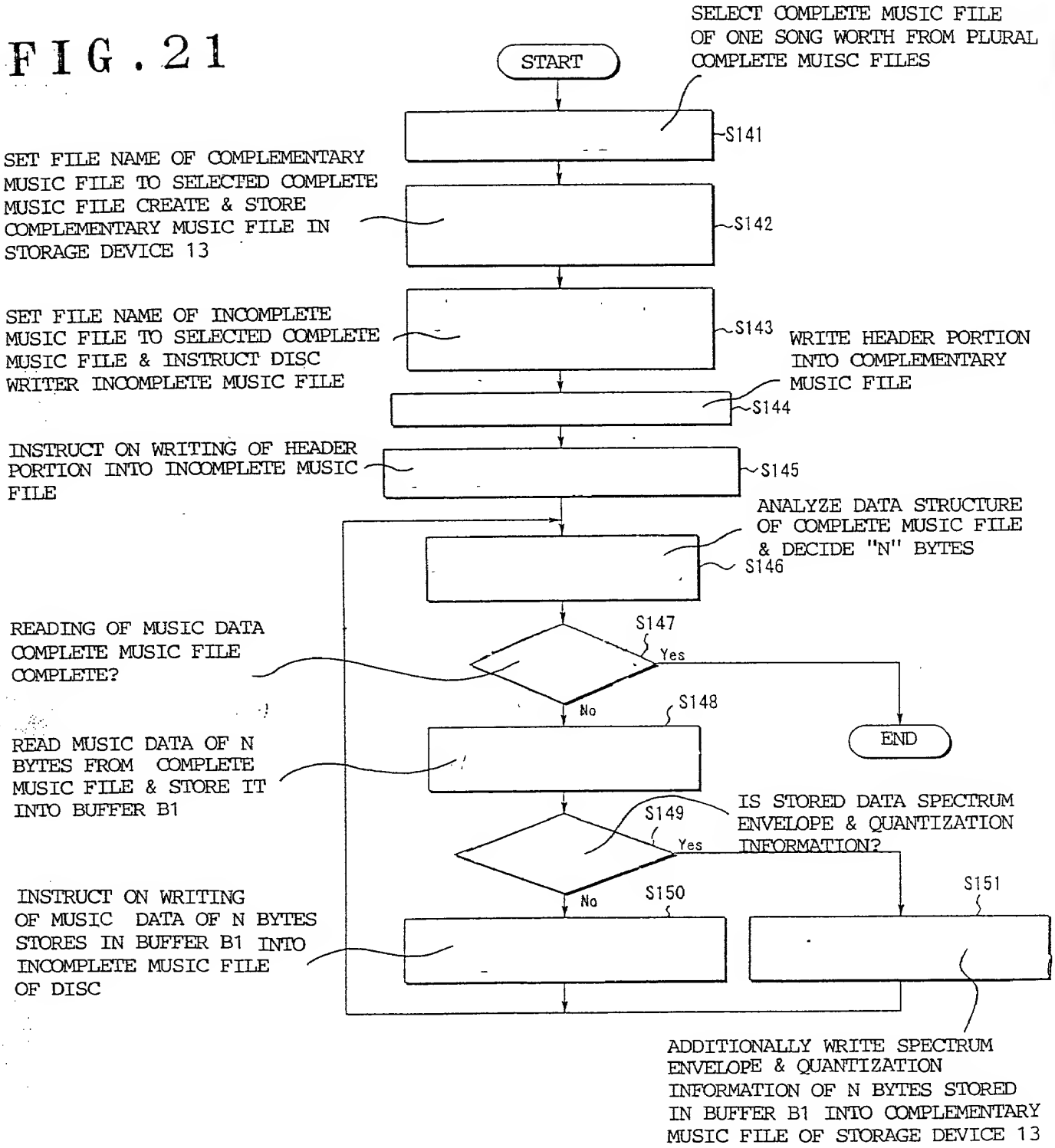


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FIG. 22

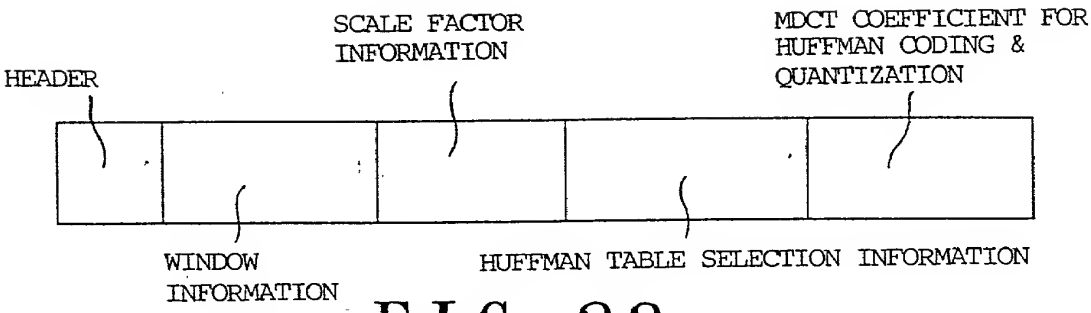

HEADER
SCALE FACTOR INFORMATION
MDCT COEFFICIENT FOR HUFFMAN CODING & QUANTIZATION
WINDOW INFORMATION
HUFFMAN TABLE SELECTION INFORMATION

FIG. 23

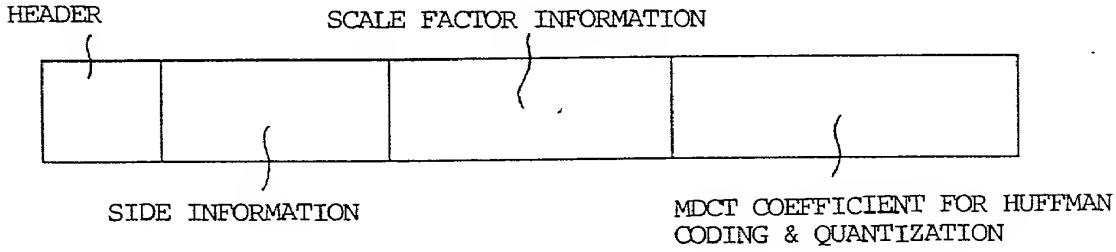
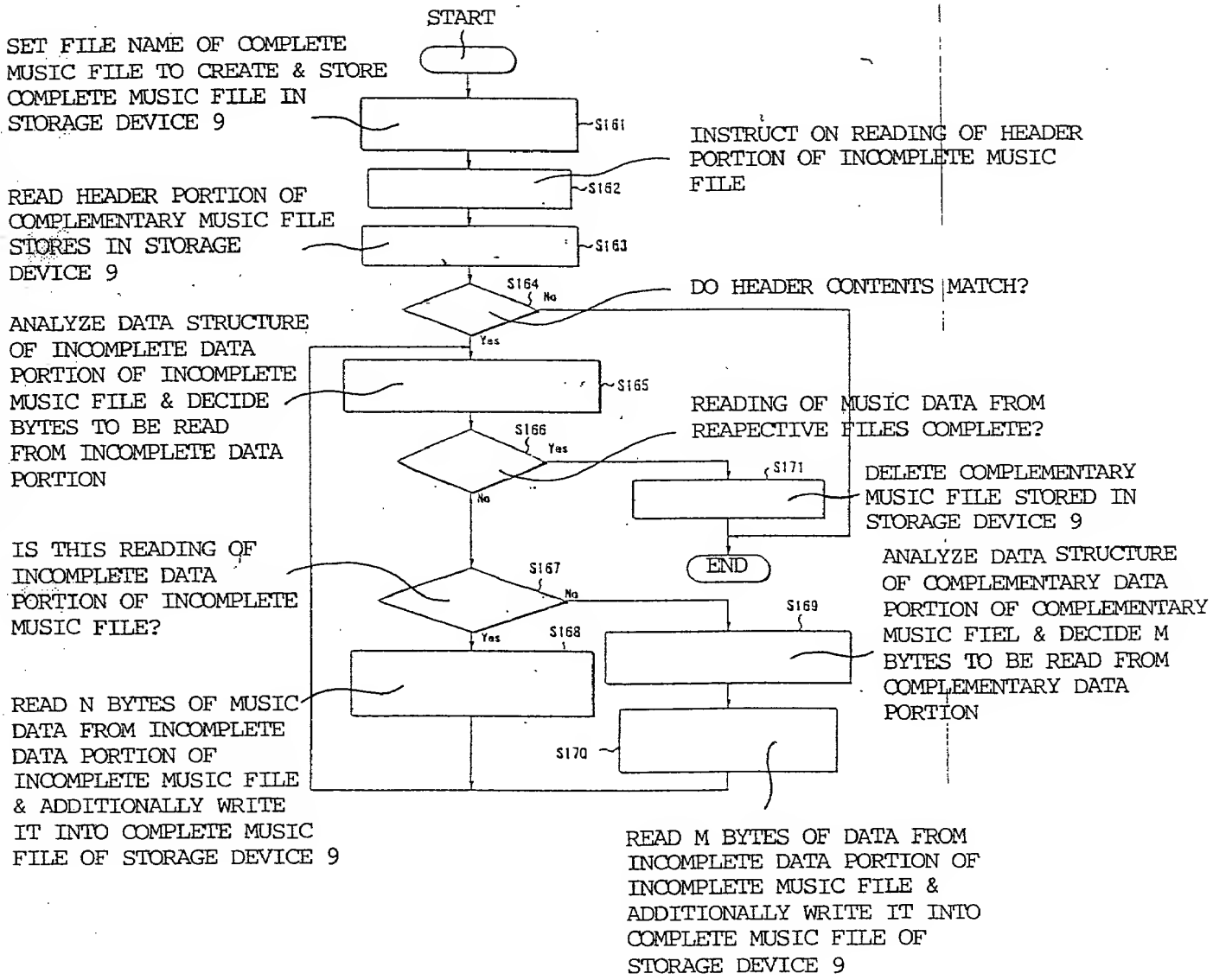

HEADER
SCALE FACTOR INFORMATION
SIDE INFORMATION
MDCT COEFFICIENT FOR HUFFMAN CODING & QUANTIZATION

FIG.24


START
SET FILE NAME OF COMPLETE MUSIC FILE TO CREATE & STORE COMPLETE MUSIC FILE IN STORAGE DEVICE 9
S161
INSTRUCT ON READING OF HEADER PORTION OF INCOMPLETE MUSIC FILE
S162
READ HEADER PORTION OF COMPLEMENTARY MUSIC FILE STORES IN STORAGE DEVICE 9
S163
S164
No
DO HEADER CONTENTS MATCH?
Yes
ANALYZE DATA STRUCTURE OF INCOMPLETE DATA PORTION OF INCOMPLETE MUSIC FILE & DECIDE BYTES TO BE READ FROM INCOMPLETE DATA PORTION
S165
READING OF MUSIC DATA FROM REAPECTIVE FILES COMPLETE?
S166
Yes
No
S171
DELETE COMPLEMENTARY MUSIC FILE STORED IN STORAGE DEVICE 9
END
IS THIS READING OF INCOMPLETE DATA PORTION OF INCOMPLETE MUSIC FILE?
S167
No
Yes
S168
S169
ANALYZE DATA STRUCTURE OF COMPLEMENTARY DATA PORTION OF COMPLEMENTARY MUSIC FIEL & DECIDE M BYTES TO BE READ FROM COMPLEMENTARY DATA PORTION
READ N BYTES OF MUSIC DATA FROM INCOMPLETE DATA PORTION OF INCOMPLETE MUSIC FILE & ADDITIONALLY WRITE IT INTO COMPLETE MUSIC FILE OF STORAGE DEVICE 9
S170
READ M BYTES OF DATA FROM INCOMPLETE DATA PORTION OF INCOMPLETE MUSIC FILE & ADDITIONALLY WRITE IT INTO COMPLETE MUSIC FILE OF STORAGE DEVICE 9

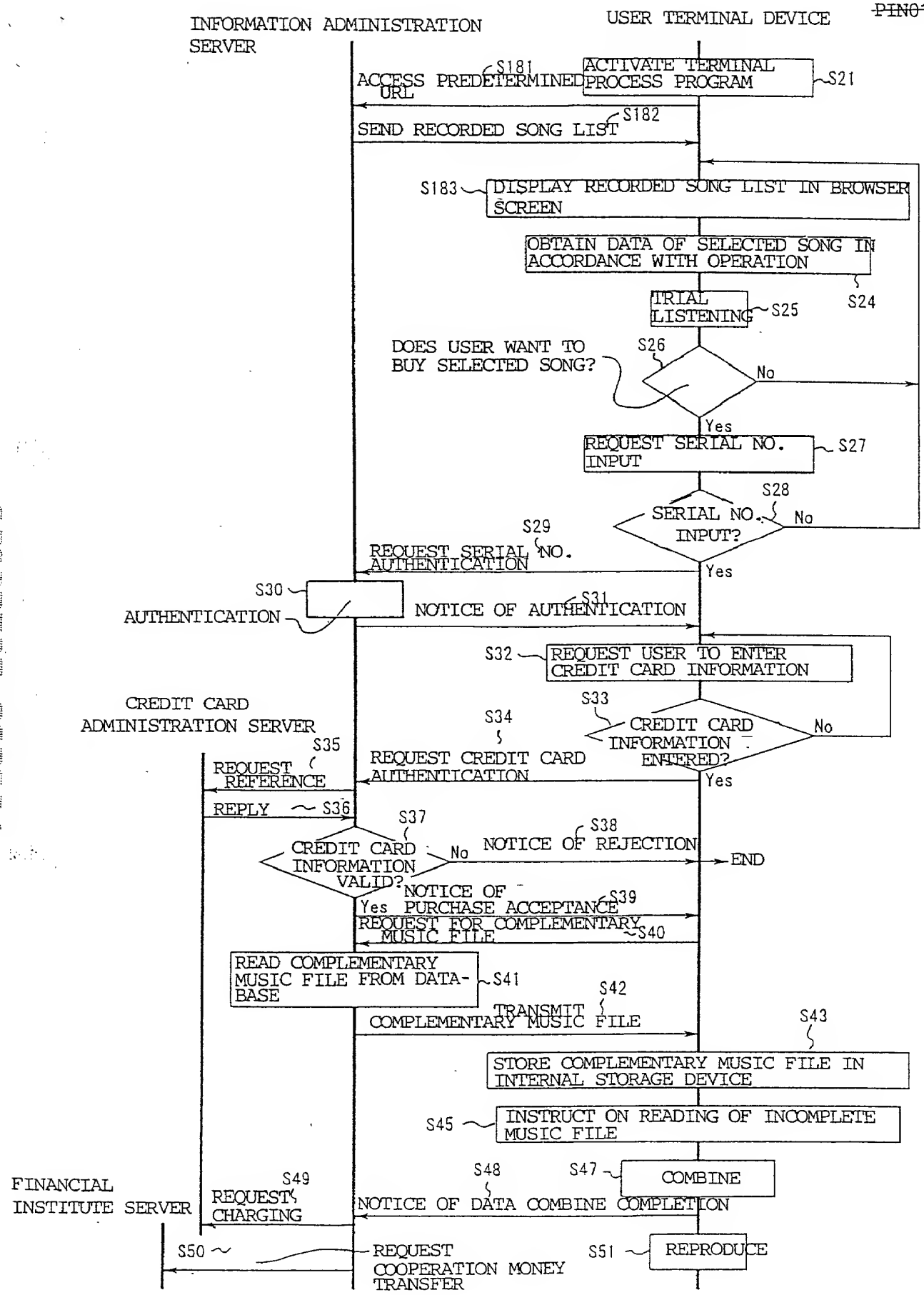

INFORMATION ADMINISTRATION SERVER
USER TERMINAL DEVICE
ACCESS PREDETERMINED URL
S181
ACTIVATE TERMINAL PROCESS PROGRAM
S21
SEND RECORDED SONG LIST
S182
S183
DISPLAY RECORDED SONG LIST IN BROWSER SCREEN
OBTAIN DATA OF SELECTED SONG IN ACCORDANCE WITH OPERATION
S24
TRIAL LISTENING
S25
DOES USER WANT TO BUY SELECTED SONG?
S26
No
Yes
REQUEST SERIAL NO. INPUT
S27
S28
SERIAL NO. INPUT?
No
Yes
S29
REQUEST SERIAL NO. AUTHENTICATION
S30
AUTHENTICATION
S31
NOTICE OF AUTHENTICATION
S32
REQUEST USER TO ENTER CREDIT CARD INFORMATION
S33
CREDIT CARD INFORMATION ENTERED?
No
Yes
CREDIT CARD ADMINISTRATION SERVER
S34
REQUEST CREDIT CARD AUTHENTICATION
S35
REQUEST REFERENCE
REPLY
S36
S37
CREDIT CARD INFORMATION VALID?
No
S38
NOTICE OF REJECTION
END
Yes
NOTICE OF PURCHASE ACCEPTANCE
S39
REQUEST FOR COMPLEMENTARY MUSIC FILE
S40
READ COMPLEMENTARY MUSIC FILE FROM DATA-BASE
S41
S42
TRANSMIT COMPLEMENTARY MUSIC FILE
S43
STORE COMPLEMENTARY MUSIC FILE IN INTERNAL STORAGE DEVICE
S45
INSTRUCT ON READING OF INCOMPLETE MUSIC FILE
S48
S47
COMBINE
FINANCIAL INSTITUTE SERVER
S49
REQUEST CHARGING
NOTICE OF DATA COMBINE COMPLETION
S50
REQUEST COOPERATION MONEY TRANSFER
S51
REPRODUCE

FIG. 25

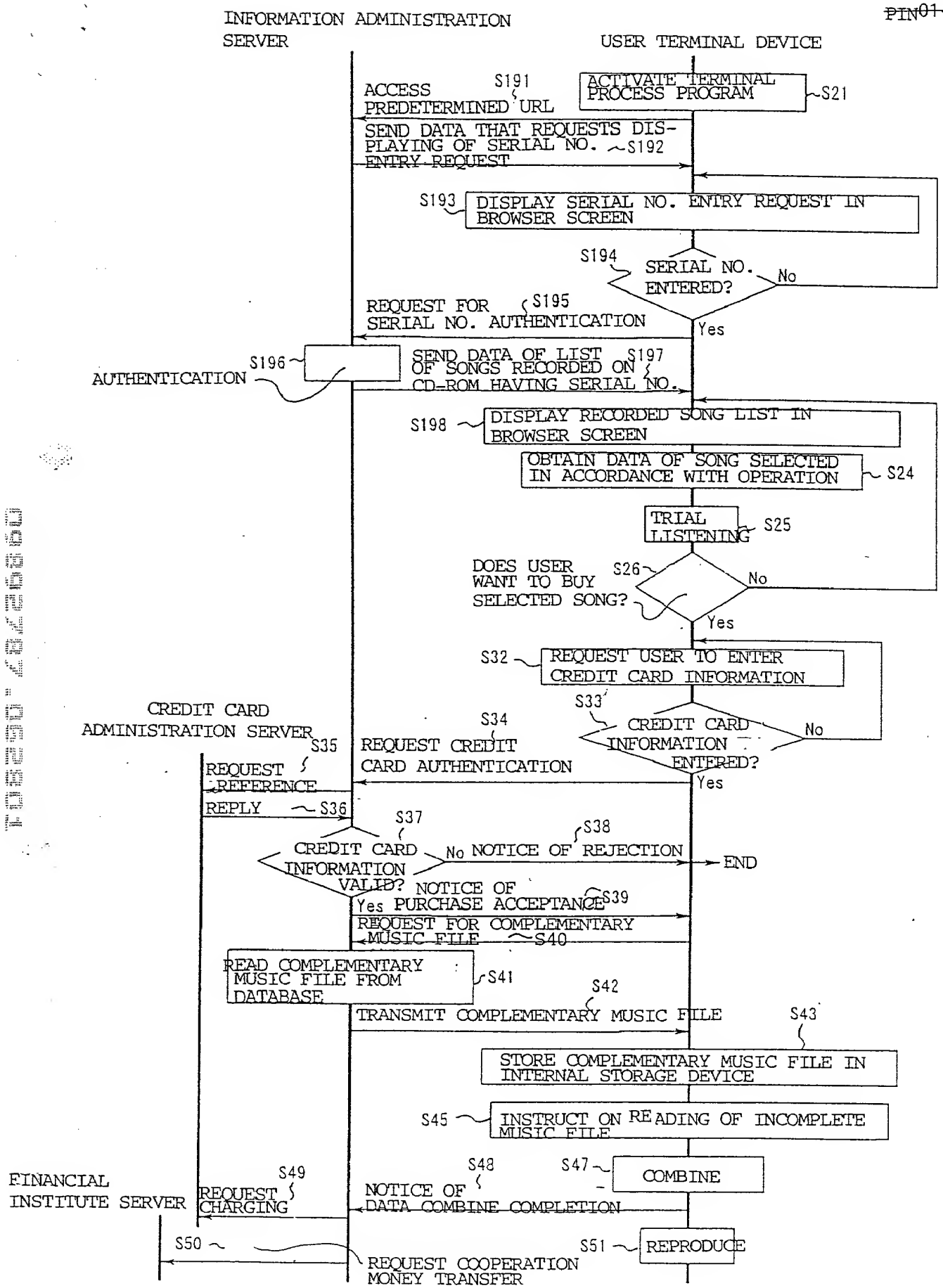

INFORMATION ADMINISTRATION SERVER
USER TERMINAL DEVICE
ACCESS PREDETERMINED URL
S191
ACTIVATE TERMINAL PROCESS PROGRAM
S21
SEND DATA THAT REQUESTS DISPLAYING OF SERIAL NO. ENTRY REQUEST
S192
S193
DISPLAY SERIAL NO. ENTRY REQUEST IN BROWSER SCREEN
S194
SERIAL NO. ENTERED?
No
Yes
REQUEST FOR SERIAL NO. AUTHENTICATION
S195
S196
AUTHENTICATION
SEND DATA OF LIST OF SONGS RECORDED ON CD-ROM HAVING SERIAL NO.
S197
S198
DISPLAY RECORDED SONG LIST IN BROWSER SCREEN
OBTAIN DATA OF SONG SELECTED IN ACCORDANCE WITH OPERATION
S24
TRIAL LISTENING
S25
DOES USER WANT TO BUY SELECTED SONG?
S26
No
Yes
S32
REQUEST USER TO ENTER CREDIT CARD INFORMATION
S33
CREDIT CARD INFORMATION ENTERED?
No
Yes
CREDIT CARD ADMINISTRATION SERVER
S34
REQUEST CREDIT CARD AUTHENTICATION
S35
REQUEST REFERENCE
REPLY
S36
S37
CREDIT CARD INFORMATION VALID?
No
S38
NOTICE OF REJECTION
END
Yes
NOTICE OF PURCHASE ACCEPTANCE
S39
REQUEST FOR COMPLEMENTARY MUSIC FILE
S40
READ COMPLEMENTARY MUSIC FILE FROM DATABASE
S41
S42
TRANSMIT COMPLEMENTARY MUSIC FILE
S43
STORE COMPLEMENTARY MUSIC FILE IN INTERNAL STORAGE DEVICE
S45
INSTRUCT ON READING OF INCOMPLETE MUSIC FILE
S48
S47
COMBINE
NOTICE OF DATA COMBINE COMPLETION
FINANCIAL INSTITUTE SERVER
S49
REQUEST CHARGING
S50
REQUEST COOPERATION MONEY TRANSFER
S51
REPRODUCE

FIG. 26

FIG. 27

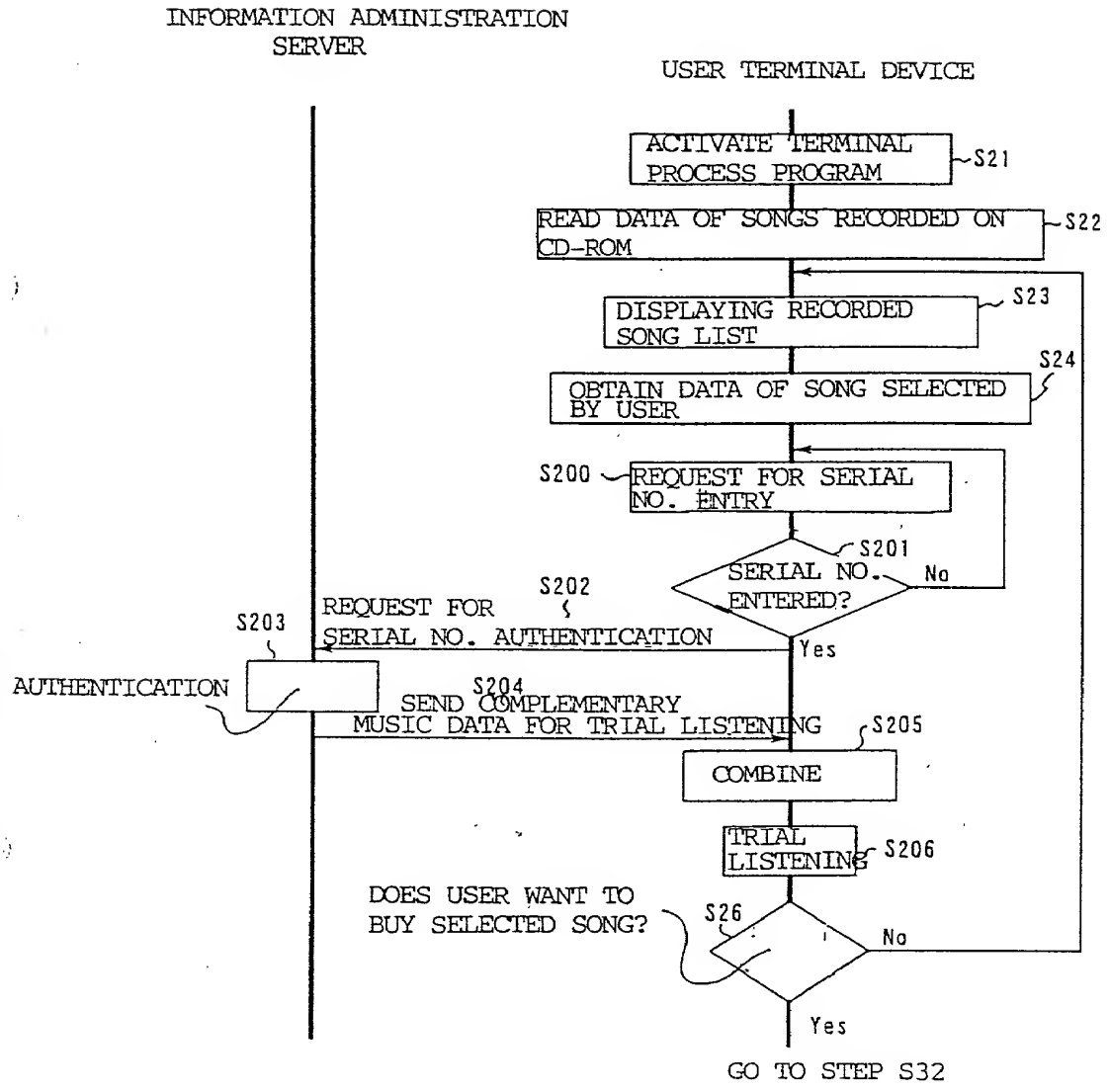

INFORMATION ADMINISTRATION SERVER
USER TERMINAL DEVICE
ACTIVATE TERMINAL PROCESS PROGRAM
S21
READ DATA OF SONGS RECORDED ON CD-ROM
S22
DISPLAYING RECORDED SONG LIST
S23
OBTAIN DATA OF SONG SELECTED BY USER
S24
S200
REQUEST FOR SERIAL NO. ENTRY
S201
SERIAL NO. ENTERED?
No
Yes
S202
REQUEST FOR SERIAL NO. AUTHENTICATION
S203
AUTHENTICATION
S204
SEND COMPLEMENTARY MUSIC DATA FOR TRIAL LISTENING
S205
COMBINE
TRIAL LISTENING
S206
DOES USER WANT TO BUY SELECTED SONG?
S26
No
Yes
GO TO STEP S32

FIG. 28

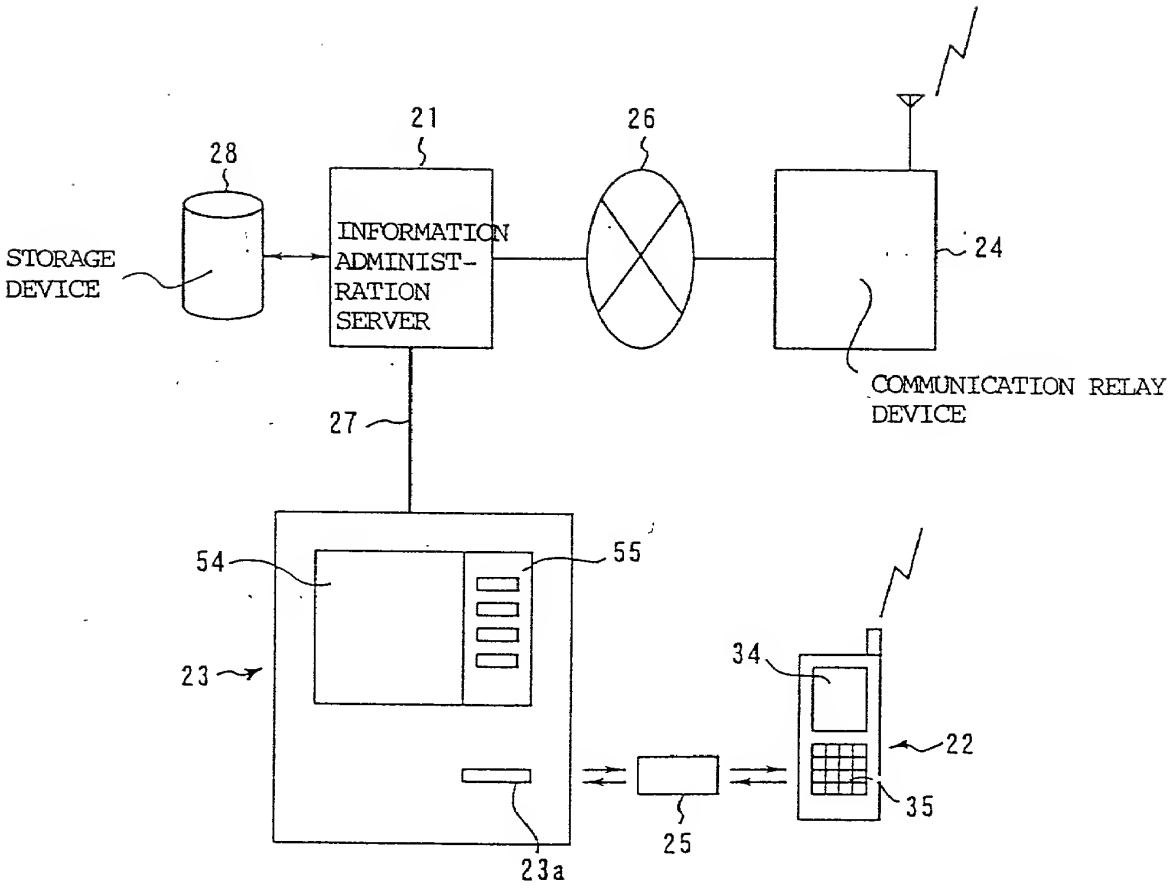

21
26
28
INFORMATION ADMINIST-RATION SERVER
STORAGE DEVICE
24
COMMUNICATION RELAY DEVICE
27
54
55
23
34
22
35
25
23a

FIG. 29

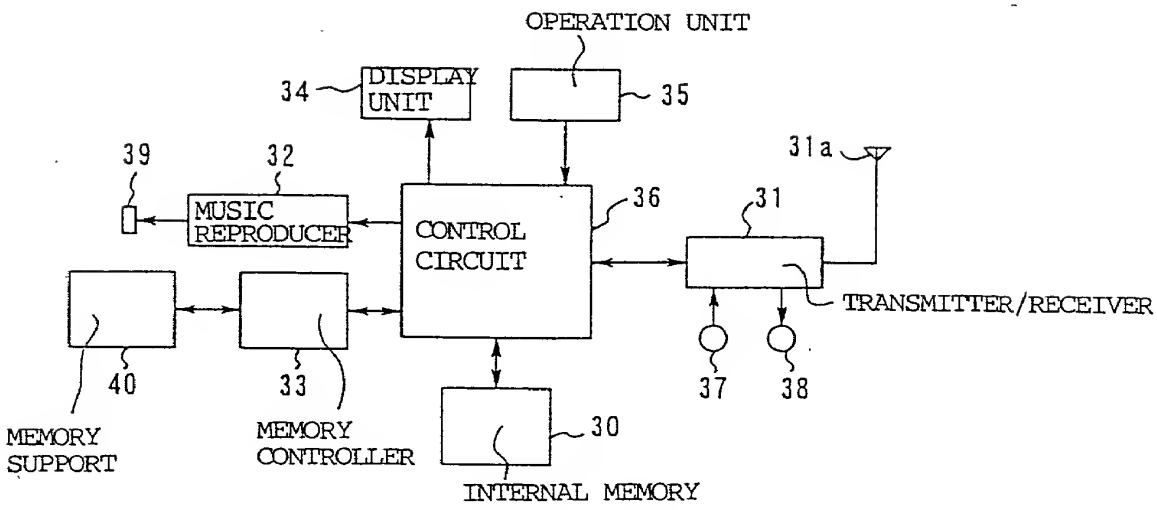

OPERATION UNIT
34
DISPLAY UNIT
35
39
32
31a
MUSIC REPRODUCER
CONTROL CIRCUIT
36
31
TRANSMITTER/RECEIVER
40
33
37
38
MEMORY SUPPORT
MEMORY CONTROLLER
30
INTERNAL MEMORY

FIG. 30

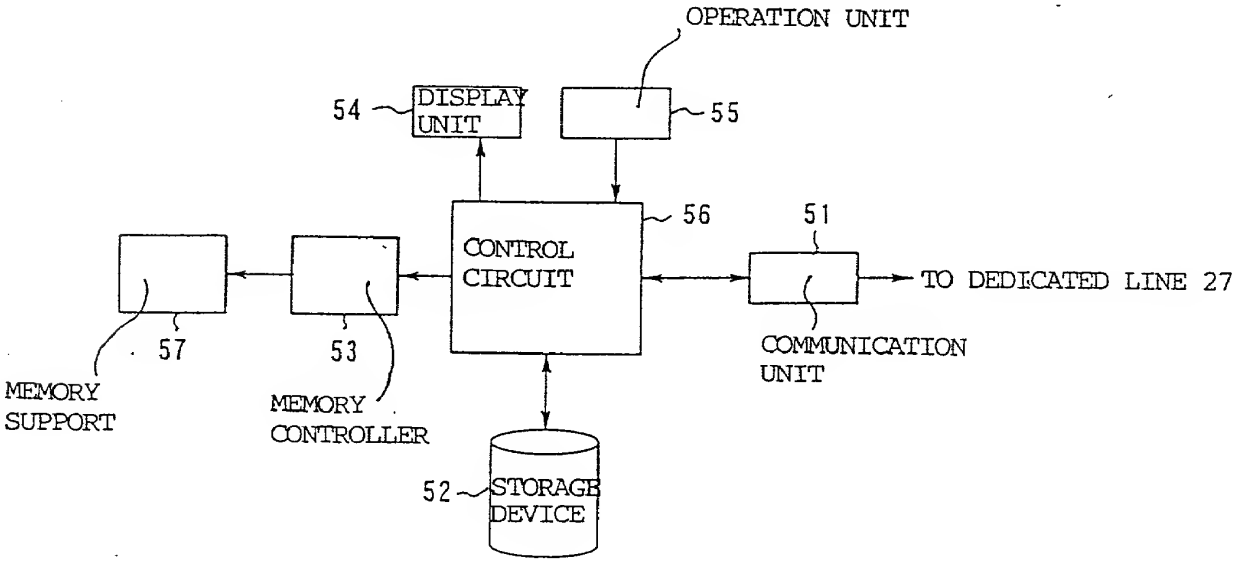

OPERATION UNIT
54
DISPLAY UNIT
55
56
51
CONTROL CIRCUIT
TO DEDICATED LINE 27
57
53
COMMUNICATION UNIT
MEMORY SUPPORT
MEMORY CONTROLLER
52
STORAGE DEVICE

FIG.31

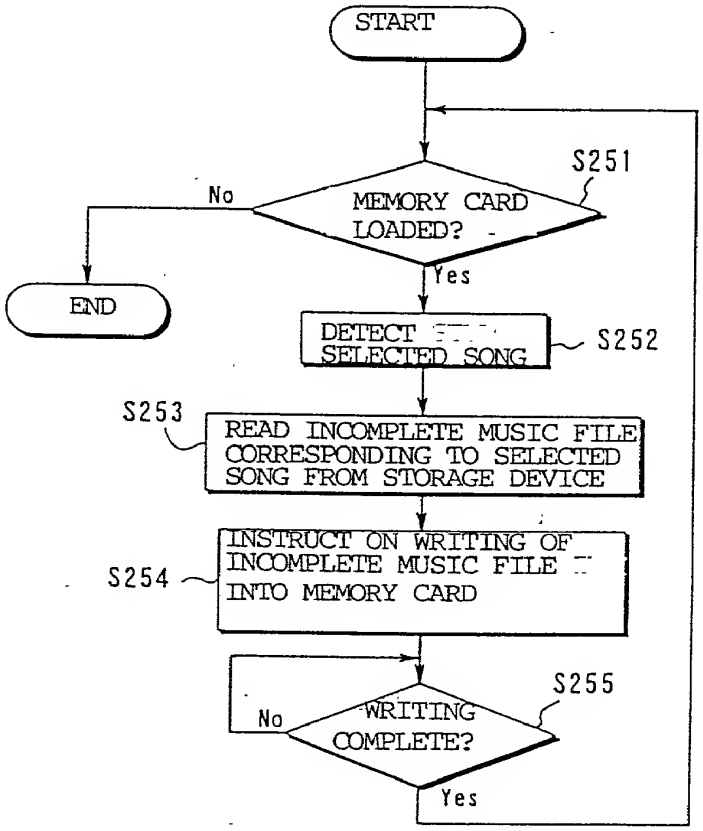

START
S251
No
MEMORY CARD LOADED?
Yes
END
DETECT SELECTED SONG
S252
S253
READ INCOMPLETE MUSIC FILE CORRESPONDING TO SELECTED SONG FROM STORAGE DEVICE
INSTRUCT ON WRITING OF INCOMPLETE MUSIC FILE INTO MEMORY CARD
S254
S255
No
WRITING COMPLETE?
Yes

FIG. 32

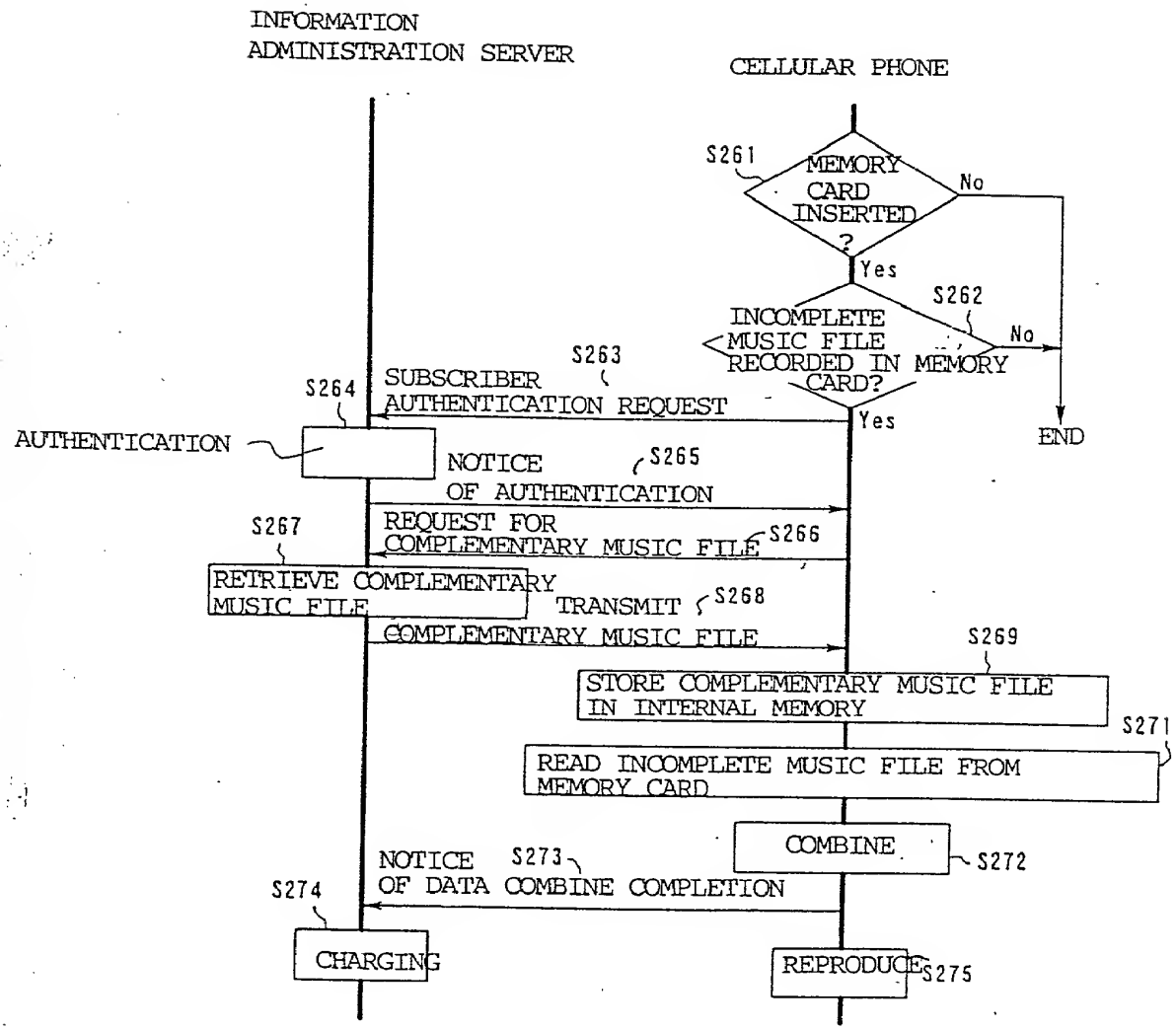

INFORMATION ADMINISTRATION SERVER
CELLULAR PHONE
S261
MEMORY CARD INSERTED ?
No
Yes
S262
INCOMPLETE MUSIC FILE RECORDED IN MEMORY CARD?
No
Yes
END
S263
S264
SUBSCRIBER AUTHENTICATION REQUEST
AUTHENTICATION
NOTICE OF AUTHENTICATION
S265
REQUEST FOR COMPLEMENTARY MUSIC FILE
S266
S267
RETRIEVE COMPLEMENTARY MUSIC FILE
TRANSMIT COMPLEMENTARY MUSIC FILE
S268
S269
STORE COMPLEMENTARY MUSIC FILE IN INTERNAL MEMORY
S271
READ INCOMPLETE MUSIC FILE FROM MEMORY CARD
COMBINE
S272
NOTICE OF DATA COMBINE COMPLETION
S273
S274
CHARGING
REPRODUCE
S275

FIG. 33

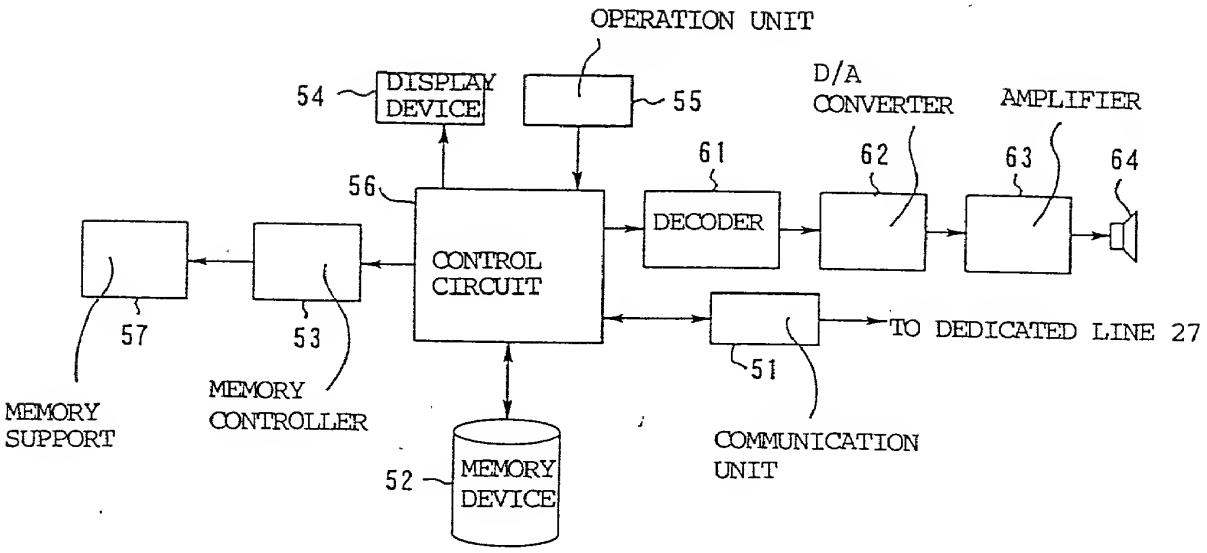
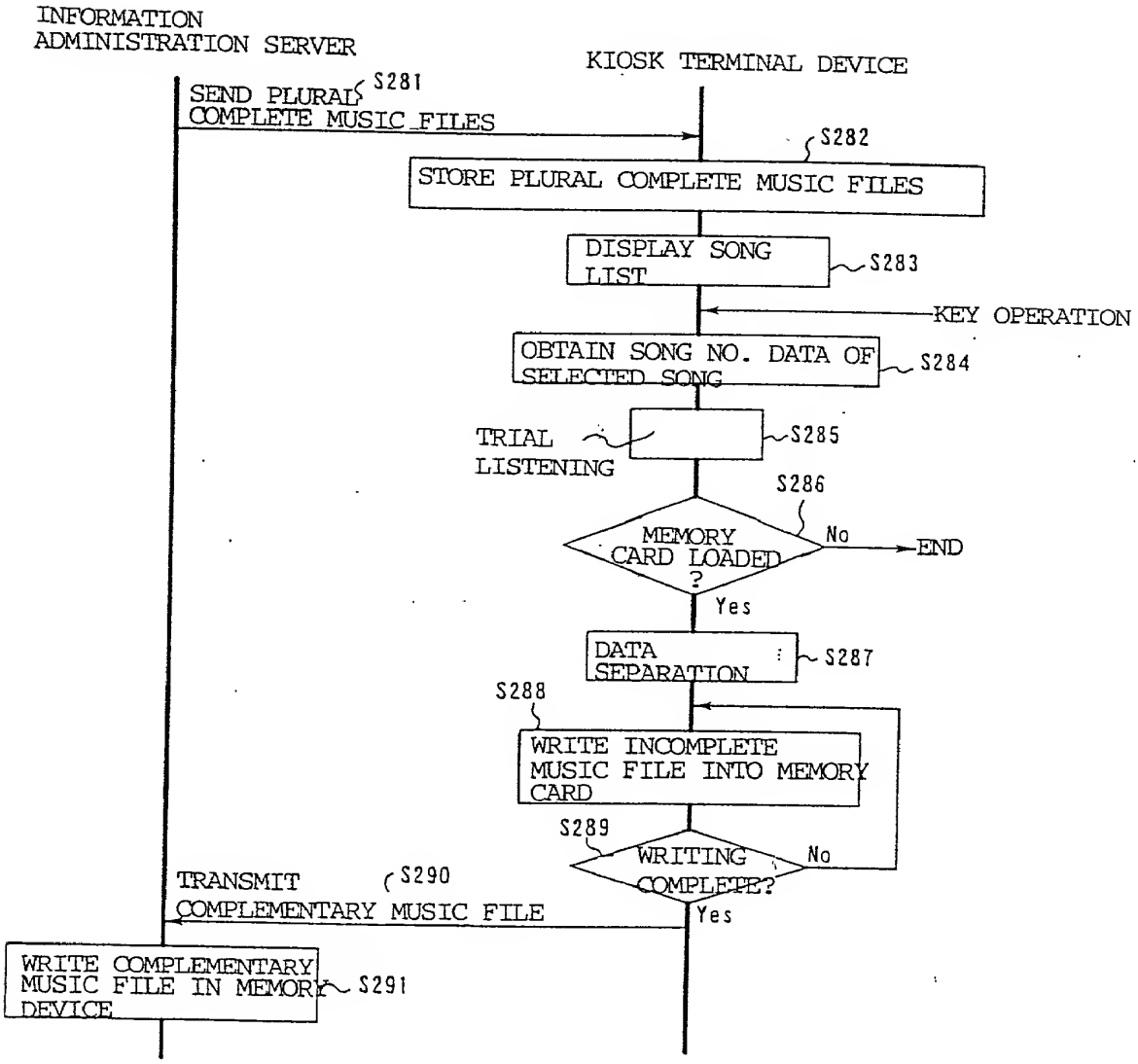

OPERATION UNIT
54
DISPLAY DEVICE
55
D/A CONVERTER
AMPLIFIER
61
62
63
64
56
DECODER
CONTROL CIRCUIT
57
53
MEMORY SUPPORT
MEMORY CONTROLLER
TO DEDICATED LINE 27
51
COMMUNICATION UNIT
52
MEMORY DEVICE

FIG. 34


INFORMATION ADMINISTRATION SERVER
KIOSK TERMINAL DEVICE
S281
SEND PLURAL COMPLETE MUSIC FILES
S282
STORE PLURAL COMPLETE MUSIC FILES
DISPLAY SONG LIST
S283
KEY OPERATION
OBTAIN SONG NO. DATA OF SELECTED SONG
S284
TRIAL LISTENING
S285
S286
MEMORY CARD LOADED ?
No
END
Yes
DATA SEPARATION
S287
S288
WRITE INCOMPLETE MUSIC FILE INTO MEMORY CARD
S289
WRITING COMPLETE?
No
Yes
TRANSMIT COMPLEMENTARY MUSIC FILE
S290
WRITE COMPLEMENTARY MUSIC FILE IN MEMORY DEVICE
S291

JP08290728268860

FIG. 35

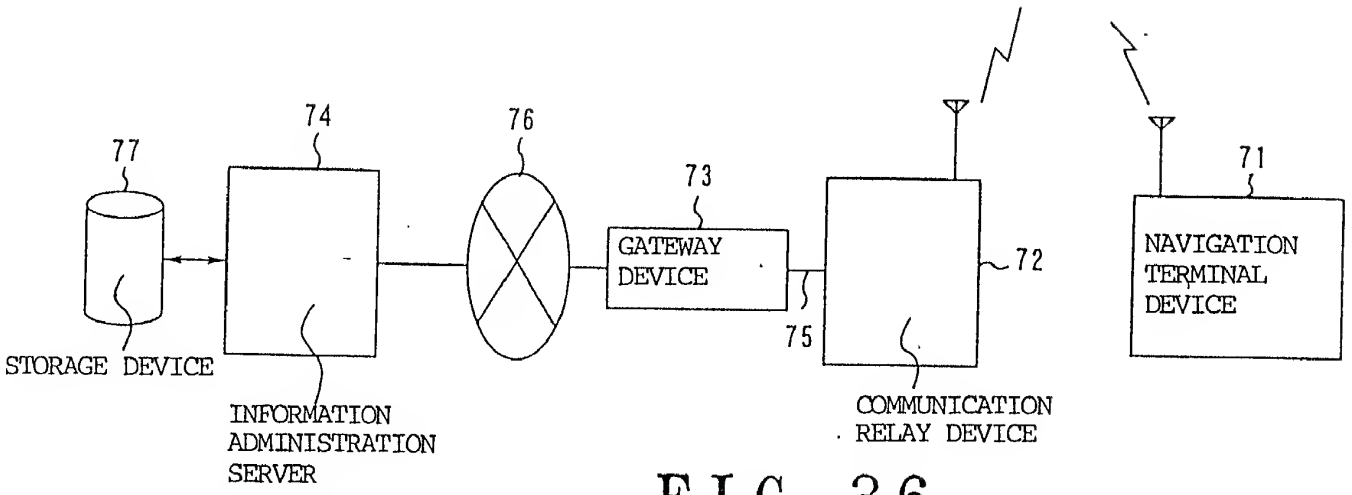
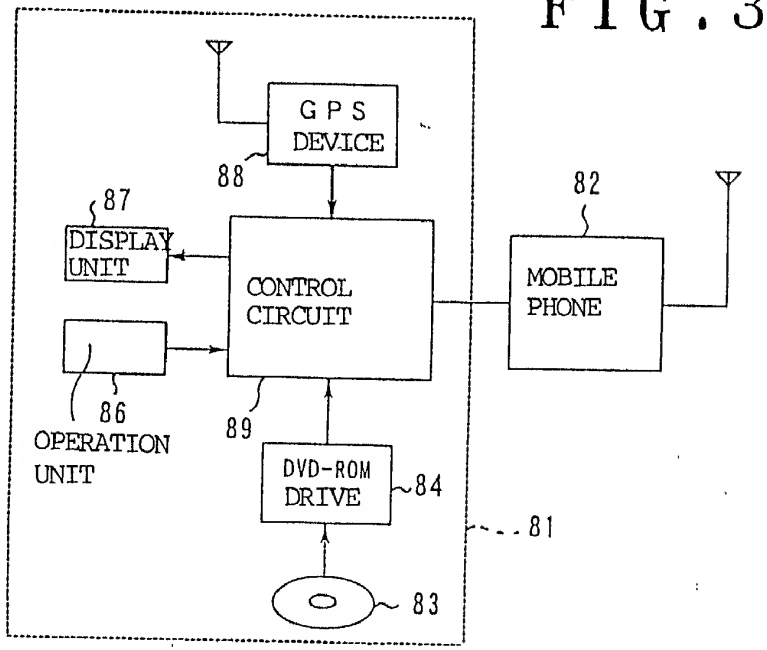
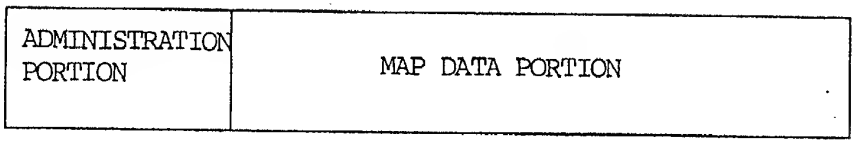


FIG. 36



PU01-0176
EP01-0176
PIN01-0176

FIG. 37


ADMINISTRATION PORTION
MAP DATA PORTION

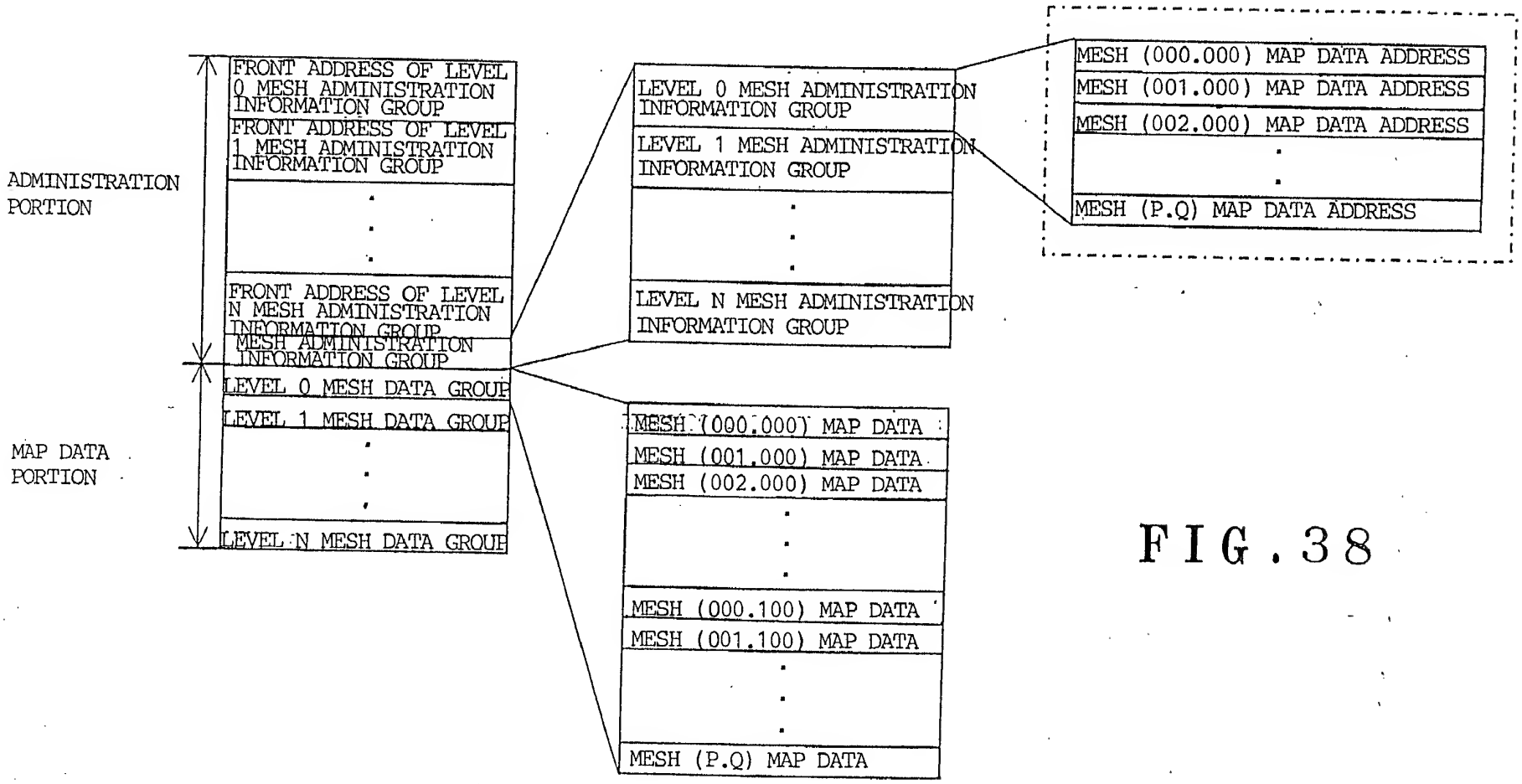

ADMINISTRATION PORTION
MAP DATA PORTION
FRONT ADDRESS OF LEVEL 0 MESH ADMINISTRATION INFORMATION GROUP
FRONT ADDRESS OF LEVEL 1 MESH ADMINISTRATION INFORMATION GROUP
FRONT ADDRESS OF LEVEL N MESH ADMINISTRATION INFORMATION GROUP
MESH ADMINISTRATION INFORMATION GROUP
LEVEL 0 MESH DATA GROUP
LEVEL 1 MESH DATA GROUP
LEVEL N MESH DATA GROUP
LEVEL 0 MESH ADMINISTRATION INFORMATION GROUP
LEVEL 1 MESH ADMINISTRATION INFORMATION GROUP
LEVEL N MESH ADMINISTRATION INFORMATION GROUP
MESH (000.000) MAP DATA ADDRESS
MESH (001.000) MAP DATA ADDRESS
MESH (002.000) MAP DATA ADDRESS
MESH (P.Q) MAP DATA ADDRESS
MESH (000.000) MAP DATA
MESH (001.000) MAP DATA
MESH (002.000) MAP DATA
MESH (000.100) MAP DATA
MESH (001.100) MAP DATA
MESH (P.Q) MAP DATA

FIG. 38

FIG. 39

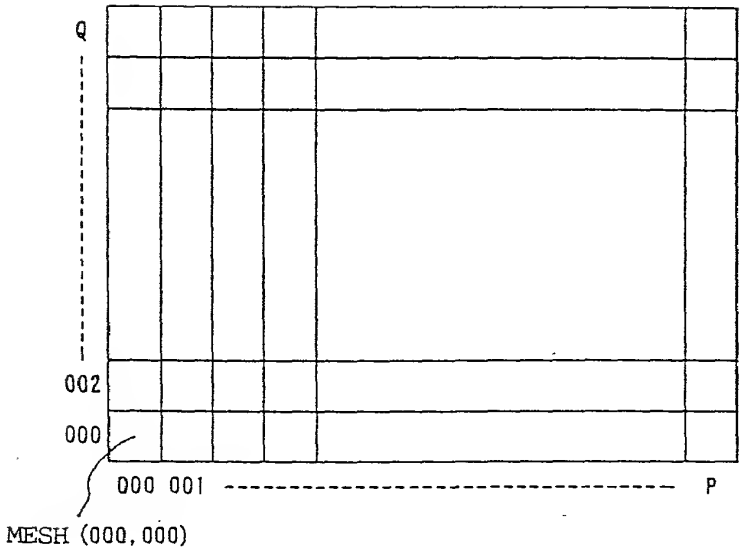


FIG. 40

MESH (000, 000)	MAP DATA ADDRESS 1
MESH (001, 000)	MAP DATA ADDRESS 2
⋮	⋮
MESH (100, 000)	MAP DATA ADDRESS 100
MESH (101, 000)	MAP DATA ADDRESS 101
MESH (102, 000)	MAP DATA ADDRESS 102
⋮	⋮
MESH (200, 000)	MAP DATA ADDRESS 200
MESH (201, 000)	MAP DATA ADDRESS 201
⋮	⋮
MESH (P , Q)	MAP DATA ADDRESS n

FIG. 41

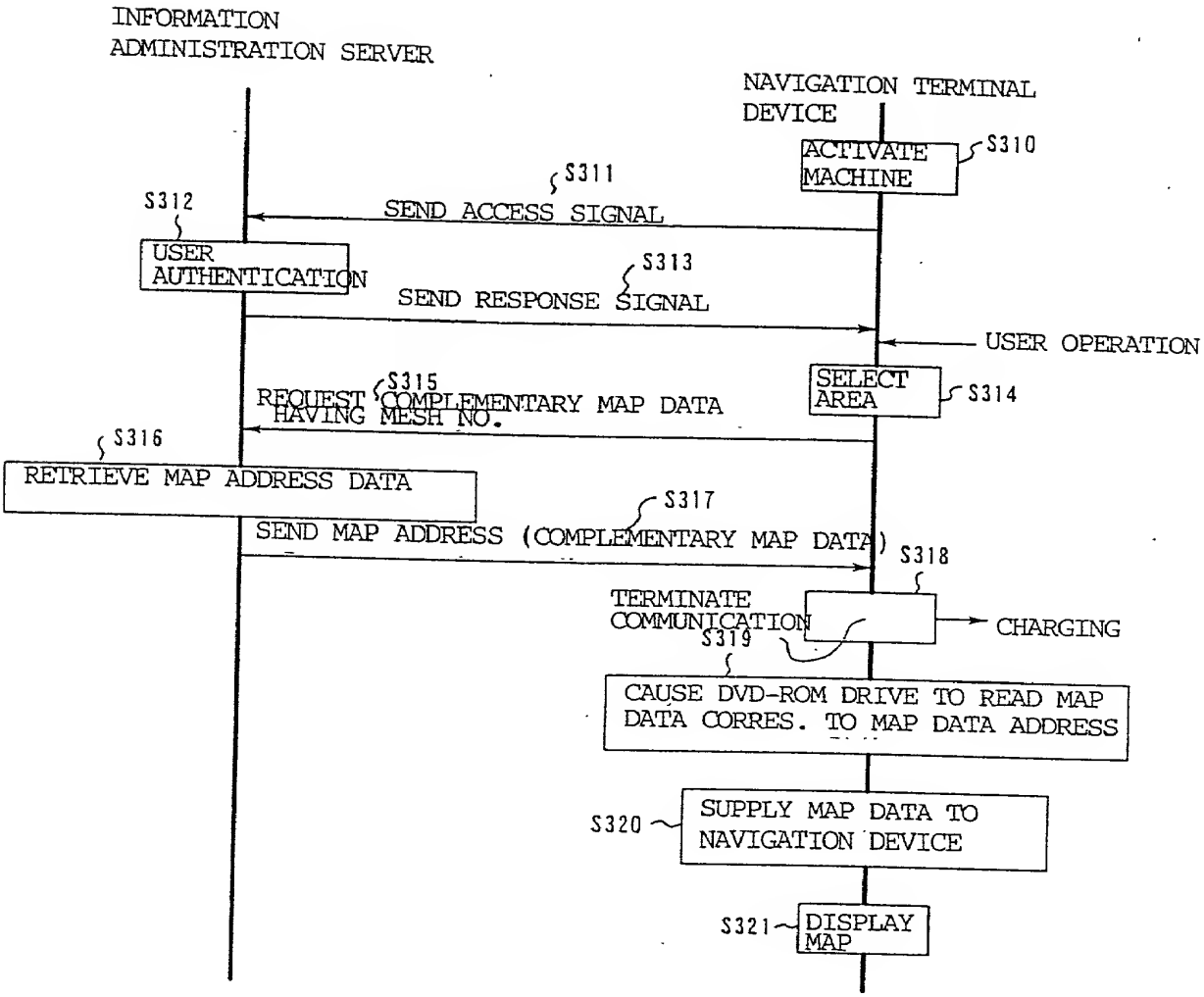

INFORMATION ADMINISTRATION SERVER
NAVIGATION TERMINAL DEVICE
ACTIVATE MACHINE
S310
S311
SEND ACCESS SIGNAL
S312
USER AUTHENTICATION
S313
SEND RESPONSE SIGNAL
USER OPERATION
SELECT AREA
S314
S315
REQUEST COMPLEMENTARY MAP DATA HAVING MESH NO.
S316
RETRIEVE MAP ADDRESS DATA
S317
SEND MAP ADDRESS (COMPLEMENTARY MAP DATA)
S318
TERMINATE COMMUNICATION
CHARGING
S319
CAUSE DVD-ROM DRIVE TO READ MAP DATA CORRES. TO MAP DATA ADDRESS
S320
SUPPLY MAP DATA TO NAVIGATION DEVICE
S321
DISPLAY MAP

FIG. 42

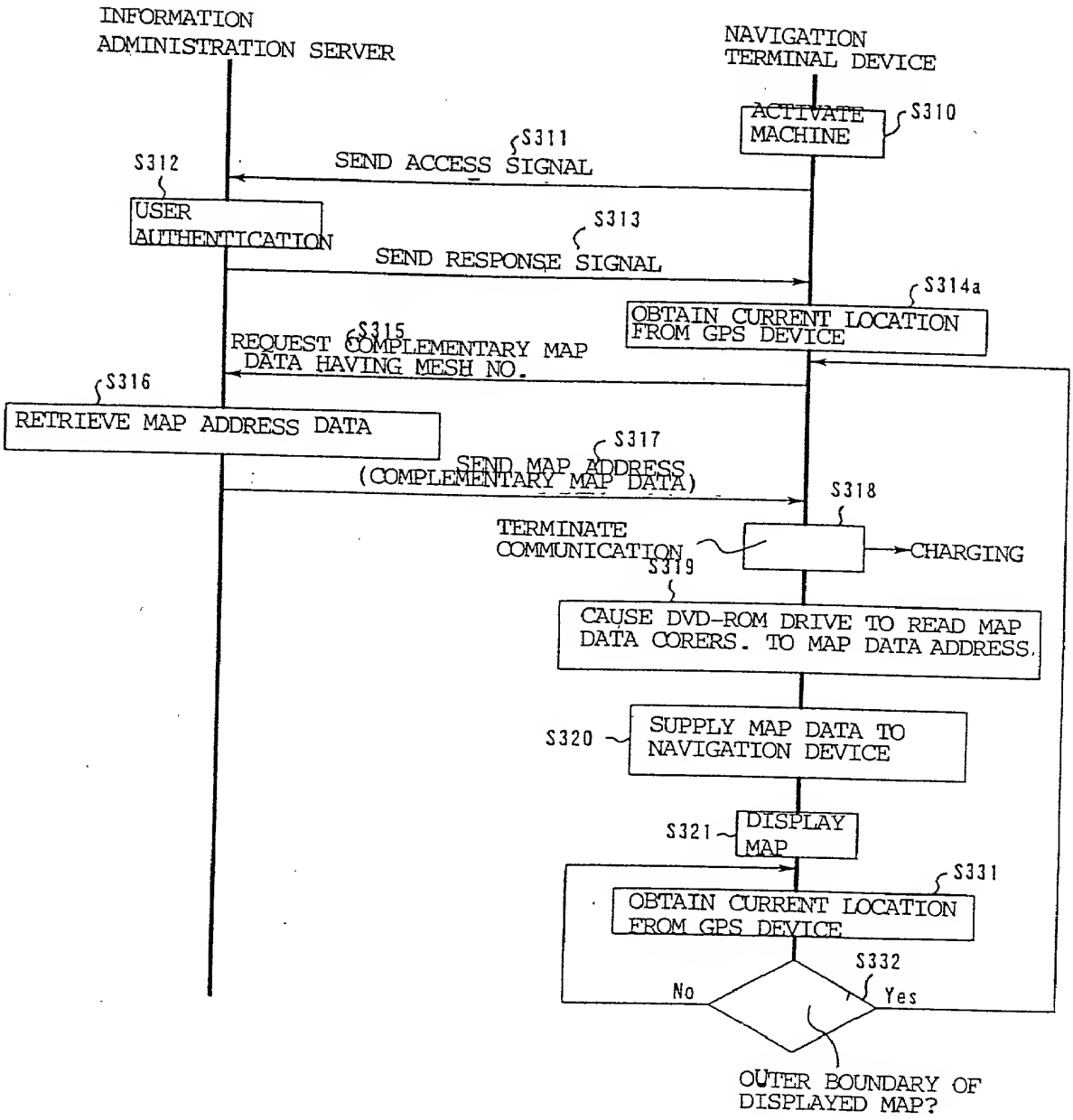

INFORMATION ADMINISTRATION SERVER
NAVIGATION TERMINAL DEVICE
ACTIVATE MACHINE
S310
S311
SEND ACCESS SIGNAL
S312
USER AUTHENTICATION
S313
SEND RESPONSE SIGNAL
S314a
OBTAIN CURRENT LOCATION FROM GPS DEVICE
S315
REQUEST COMPLEMENTARY MAP DATA HAVING MESH NO.
S316
RETRIEVE MAP ADDRESS DATA
S317
SEND MAP ADDRESS (COMPLEMENTARY MAP DATA)
S318
TERMINATE COMMUNICATION
CHARGING
S319
CAUSE DVD-ROM DRIVE TO READ MAP DATA CORERS. TO MAP DATA ADDRESS.
S320
SUPPLY MAP DATA TO NAVIGATION DEVICE
S321
DISPLAY MAP
S331
OBTAIN CURRENT LOCATION FROM GPS DEVICE
S332
No
Yes
OUTER BOUNDARY OF DISPLAYED MAP?

FIG. 43

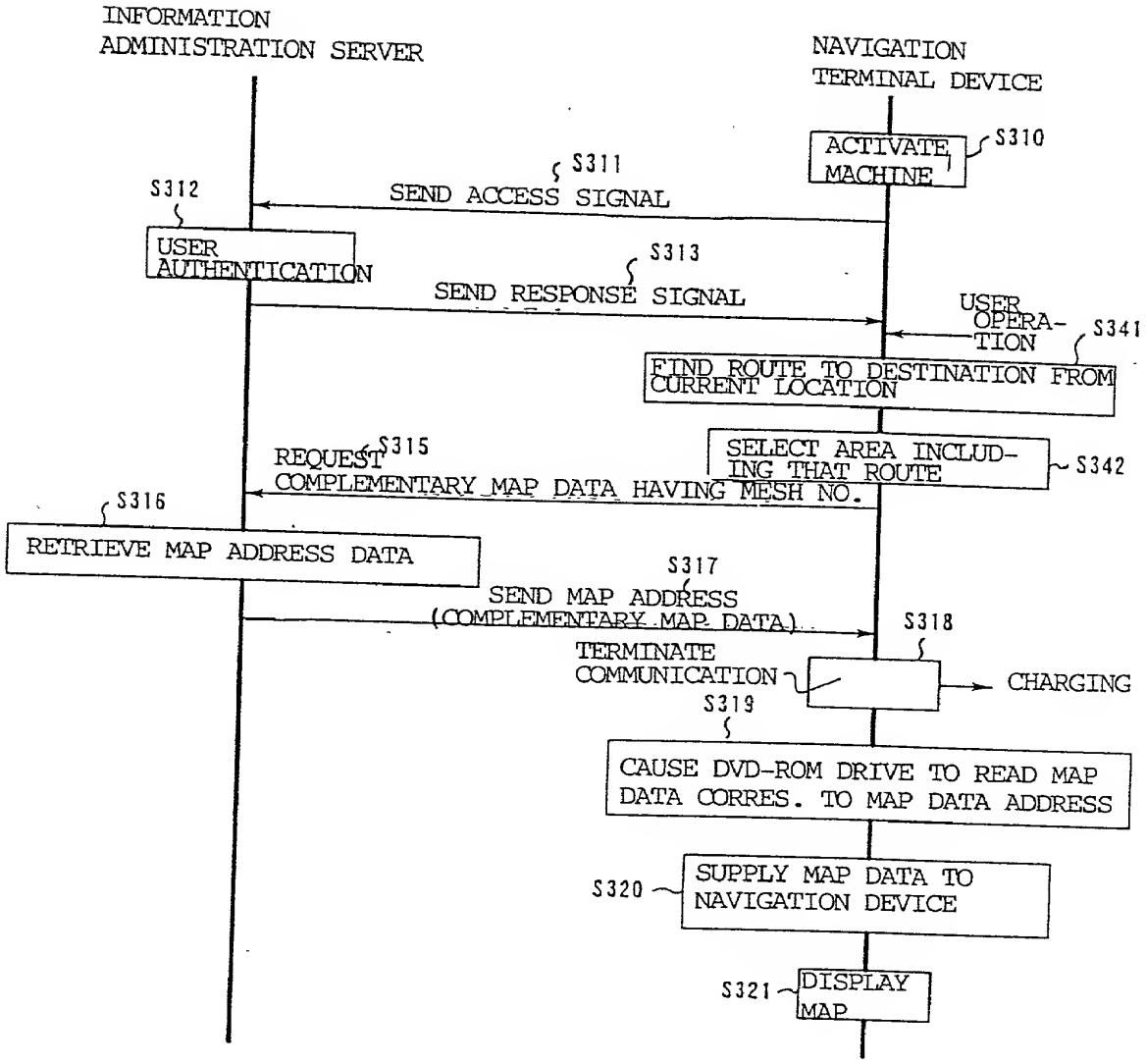
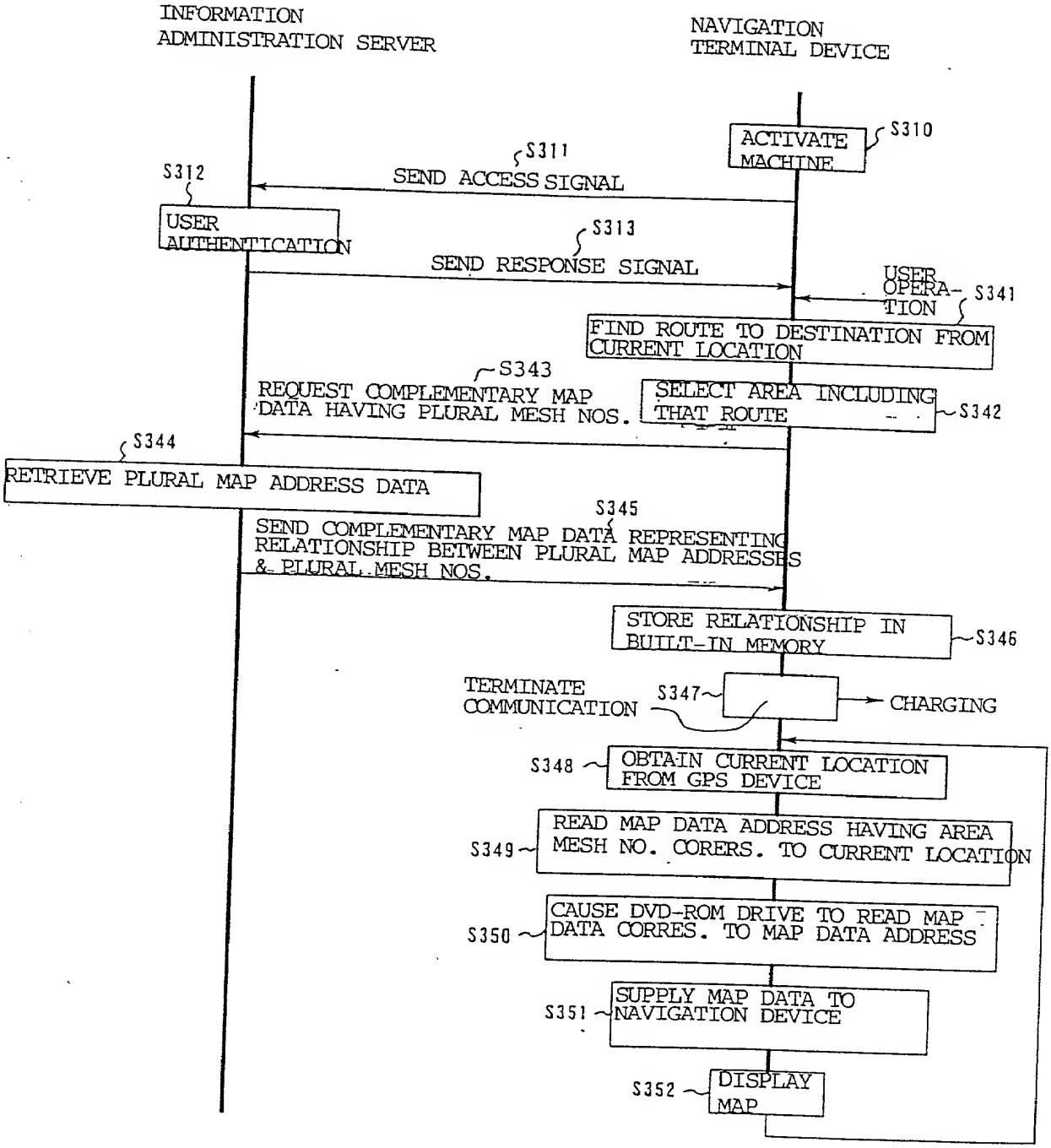

INFORMATION ADMINISTRATION SERVER
NAVIGATION TERMINAL DEVICE
ACTIVATE MACHINE
S310
S311
SEND ACCESS SIGNAL
S312
USER AUTHENTICATION
S313
SEND RESPONSE SIGNAL
USER OPERA-TION
S341
FIND ROUTE TO DESTINATION FROM CURRENT LOCATION
SELECT AREA INCLUD-ING THAT ROUTE
S342
S315
REQUEST COMPLEMENTARY MAP DATA HAVING MESH NO.
S316
RETRIEVE MAP ADDRESS DATA
S317
SEND MAP ADDRESS (COMPLEMENTARY MAP DATA)
S318
TERMINATE COMMUNICATION
CHARGING
S319
CAUSE DVD-ROM DRIVE TO READ MAP DATA CORRES. TO MAP DATA ADDRESS
S320
SUPPLY MAP DATA TO NAVIGATION DEVICE
S321
DISPLAY MAP

FIG. 44


INFORMATION ADMINISTRATION SERVER
NAVIGATION TERMINAL DEVICE
ACTIVATE MACHINE
S310
S311
SEND ACCESS SIGNAL
S312
USER AUTHENTICATION
S313
SEND RESPONSE SIGNAL
USER OPERATION
S341
FIND ROUTE TO DESTINATION FROM CURRENT LOCATION
S343
REQUEST COMPLEMENTARY MAP DATA HAVING PLURAL MESH NOS.
SELECT AREA INCLUDING THAT ROUTE
S342
S344
RETRIEVE PLURAL MAP ADDRESS DATA
S345
SEND COMPLEMENTARY MAP DATA REPRESENTING RELATIONSHIP BETWEEN PLURAL MAP ADDRESSES & PLURAL MESH NOS.
STORE RELATIONSHIP IN BUILT-IN MEMORY
S346
TERMINATE COMMUNICATION
S347
CHARGING
S348
OBTAIN CURRENT LOCATION FROM GPS DEVICE
S349
READ MAP DATA ADDRESS HAVING AREA MESH NO. CORERS. TO CURRENT LOCATION
S350
CAUSE DVD-ROM DRIVE TO READ MAP DATA CORRES. TO MAP DATA ADDRESS
S351
SUPPLY MAP DATA TO NAVIGATION DEVICE
S352
DISPLAY MAP